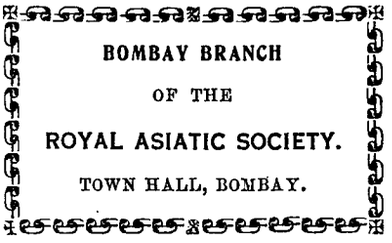
1324
2

Administration Report
Burma
1907-08 to 1911-12

00133906



Digitized with financial assistance from

Government of Maharashtra

on 01 February, 2020

REPORT

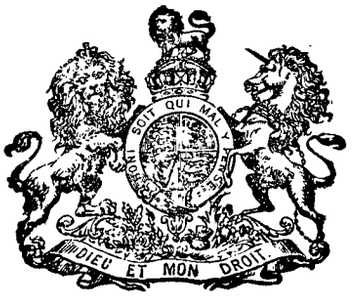
ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR

1907-08 to 1911-12

133906
ae



00133906

RANGOON
OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA
1908

LIST OF AGENTS

FOR THE

SALE OF GOVERNMENT PUBLICATIONS.

IN INDIA:

THACKER, SPINK & Co., Calcutta
W. NEWMAN & Co., Calcutta.
THACKER & Co., Bombay.
HIGGINBOTHAM & Co., Madras.
PROPRIETOR, HANTHAWADDY PRESS, Rangoon.
SUPERINTENDENT, AMERICAN BAPTIST MISSION PRESS, Rangoon.

IN ENGLAND:

E. A. ARNOLD, 41 and 43, Maddox Street, Bond Street, W. London.
HENRY S. KING & Co., 65, Cornhill, E.C., London
CONSTABLE & Co., 10, Orange Street, Leicester Square, W.C.
KEGAN PAUL, TRENCH, TRÜBNER & Co., 43, Gerrard Street, Soho, London, W
BERNARD QUARITCH, 11, Grafton Street, New Bond Street, W.
P. S. KING & SON, 2 & 4, Great Smith Street, Westminster, London, W.S
GRINDLAY & Co., 54, Parliament Street, S.W.
T. FISHER UNWIN, 1, Adelphi Terrace, London, W.C.
B. H. BLACKWELL, 50 & 51, Broad Street, Oxford.
DEIGHTON BELL & Co., Cambridge.
MESSRS. W. THACKER & Co., 2, Creed Lane, London, E.C.

ON THE CONTINENT:

R. FRIEDLANDER & SOHN, 11, Carlstrasse, Berlin, Germany.
OTTO HARRASSOWITZ, Leipzig, Germany.
KARL W. HIERSEMANN, Leipzig, Germany.
ERNEST LEROUX, 28, Rue Bonaparte, Paris, France.
MARTINUS NIJHOFF, The Hague, Holland.
RUDOLF HAUPT, 1, Dorrientrasse, Leipzig, Germany.

[The maximum length of the Summary is from 20 to 30 pages, and of Part II 150 pages.]

TABLE OF CONTENTS.

REPORT ON THE ADMINISTRATION OF BURMA FOR THE YEAR 1907-08.

PART I.

GENERAL SUMMARY.

	Para.	*Page.*
Changes in the Administration	1	i
Frontier affairs	2	*ib.*
The Shan States and Karenni	3	*ib.*
The Chin Hills	4	ii
Realisation of land revenue	5	*ib.*
Surveys	6	*ib.*
Settlements	7	*ib.*
Land Records	8	*ib.*
Transfers of land	9	*ib.*
Disposal of waste lands	10	iii
Revenue and rent-paying classes	11	*ib.*
Legislation	12	*ib.*
Police	13	*ib.*
Criminal Justice	14	iv
Prisons	15	*ib.*
Civil Justice	16	v
Registration	17	vi
Municipal Administration	18	*ib*
Military	19	*ib.*
Marine	20	*ib.*
Agriculture	21	vii
Weather and Crops	22	viii
Experimental cultivation	23	*ib.*
Horticulture	24	*ib.*
Forests	25	*ib.*
Mines and Quarries	26	*ib.*
Manufactures	27	ix
Seaborne Trade	28	*ib.*
Transfrontier Trade	29	*ib.*
Public Works—		
(i) Roads and Buildings	30	*ib.*
(ii) Railways and Tramways	31	*ib.*
(iii) Canals	32	x
Irrigation	33	*ib.*
Provincial Settlement	34	*ib.*
Gross Revenue	35	*ib.*
Imperial Revenue and Finance—Land Revenue	36	*ib.*
Customs	37	*ib.*
Salt	38	*ib.*
Opium and Excise	39	xi
Stamps	40	*ib.*
Assessed Taxes	41	*ib.*
Forests	42	*ib.*
Imperial Expenditure	43	*ib.*
Provincial Revenues	44	xii
Local Funds	45	*ib.*
Municipal Revenues	46	*ib.*
Births and Deaths	47	*ib.*
Emigration and Immigration	48	xiii
Medical Relief	49	*ib.*
Sanitation	50	*ib.*
Vaccination	51	xiv
Education	52	xv
Archæology	53	xvi

PART II.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

	Para.	Page.
Physical features of the country, area, climate and chief staples		1
POLITICAL.		
Historical Summary		1
Character of Land Tenures: System of Survey and Settlements		*ib.*
Civil Divisions of British Territory		*ib.*
Details of the last Census; Tribes and Languages		*ib.*
Form of Administration.		
Lieutenant-Governor and Council	1	1
Administrative Divisions—Shan States	2	2
Chin Hills	3	*ib.*
Upper Burma	4	*ib.*
Commissioners	5	*ib.*
Other executive officers	6	3
Village system	7	*ib.*
Revenue Administration	8	*ib.*
Judicial Administration	9	*ib.*
Public Works	10	4
Police	11	*ib.*
Medical	12	*ib.*
Forests	13	*ib.*
Excise	14	*ib.*
Ports	15	5
Customs	16	*ib.*
Education	17	*ib.*
Ecclesiastical	18	*ib.*
Local Self-Government	19	*ib.*
Miscellaneous	20	*ib.*
Changes in the Administration.		
The Lieutenant-Governor	21	5
Administrative territorial units	22	*ib.*
Additions to and changes in the Administrative staff	23	6
RELATIONS WITH TRIBUTARY STATES AND FRONTIER AFFAIRS.		
(*i*) *Shan and Karenni States.*		
General	24	6
Events of the year	25	*ib.*
Internal affairs	26	*ib.*
Public Works	27	7
New projects	28	*ib.*
Forest Administration	29	*ib.*
Education	30	8
Medical and Veterinary Departments	31	*ib.*
(*ii*) *The Chin Hills.*		
Frontier Tribes	32	8
Chin Hills proper	33	*ib.*
Pakôkku Hill Tracts	34	9
Arakan Hill Tracts	35	*ib.*
(*iii*) *The Kachin Hills.*		
Chinese Frontier	36	9
Unadministered Territory	37	*ib.*
Internal Administration	38	*ib.*
Condition of the People.		
———	39	10

CHAPTER II.

ADMINISTRATION OF THE LAND.

Realisation of the Revenue.		
Demand, recoveries, remissions and outstandings	40	11
Coercive processes	41	*ib.*
Surveys.		
Demarcation preliminary to Survey	42	12
Surveys by Imperial Agency	43	*ib.*
Surveys by Provincial Agency:— (i) Revision Surveys	44	*ib.*
Surveys by Provincial Agency:— (ii) Extension Surveys	45	13
Settlements.		
Changes of procedure	46	14
Operations of the year	47	*ib.*
Settlements in progress	48	*ib.*
Orders on completed Settlements	49	15

Land Records.

	Para.	Page.
Area under Supplementary Survey	50	15
Cost of Supplementary Survey	51	*ib.*
Survey Schools	52	16
Transfers of land	53	*ib.*

Waste Lands.

Grants and leases for cultivation	54	17
Revenue-free grants	55	*ib.*

Government Estates and Wards' Estates.

———	56	17

Revenue and Rent-paying Classes.

Land revenue paying classes	57	17
Tenants	58	*ib.*

CHAPTER III.

PROTECTION.

Legislating Authority	59	18

Course of Legislation.

Work of Legislating Council	60	18
General Acts affecting Burma	61	19
Extension of Enactments to the Shan States	62	*ib.*

Police.

Police Commission Reforms	63	20
Important incidents	64	*ib.*
Strength, distribution and cost	65	21
Recruitment and conduct	66	*ib.*
Buildings	67	*ib.*
Crime and the working of the Police	68	*ib.*
Detection	69	22
Preventive law	70	*ib.*
Surveillance and identification	71	*ib.*
Railway Police	72	23
Military Police	73	*ib.*
Punitive Police	74	*ib.*
Village Administration	75	*ib.*
Wild animals and snakes	76	24
Rangoon Town Police	77	25

Criminal Justice.

Courts	78	26
Disposal of cases	79	*ib.*
Punishments	80	27
Appeals	81	*ib.*
Revisions	82	*ib.*

Prisons.

Accommodation	83	27
Prisoners	84	28
Discipline	85	*ib.*
Financial	86	*ib.*
Vital	87	29

Civil Justice.

Courts	88	29
Volume and classification of litigation	89	*ib.*
Disposal of cases	90	30
Execution of decrees	91	*ib.*
Insolvency proceedings	92	*ib.*
Appeals	93	*ib.*

Registration.

General	94	30
Deeds registered	95	*ib.*
Income and expenditure	96	31

Joint Stock Companies.

Number of Companies	97	31
Capital	98	*ib.*
General	99	*ib.*

Local Boards Administration.

———	100	31

Municipal Administration.

Rangoon Municipality	101	32
Minor Municipalities and their Committees	102	*ib.*
Minor Municipalities: taxation	103	*ib.*
Minor Municipalities: public health and convenience	104	*ib.*

	Para.	Page.
Military.		
Strength of the garrison	105	33
Military works	106	*ib.*
Military (Volunteering).		
———	107	34
Marine.		
Light-houses and light-ships	108	34
Port Administration, Rangoon	109	*ib.*
Pilot Service, Rangoon	110	35
Minor Ports	111	*ib.*
Commercial Marine	112	*ib.*
Commercial Marine: wrecks and casualties	113	36
Government steamers and launches	114	*ib.*
Marine works and surveys	115	*ib.*

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

Agriculture.		
Agricultural stock and cattle disease	116	38
Pony and cattle breeding	117	*ib.*
Prices	118	39
Agricultural loans	119	*ib.*
Co-operative Credit Societies	120	40
Protection from floods	121	*ib.*
Area irrigated	122	*ib.*
Weather and Crops.		
Character of the seasons	123	41
Area under cultivation	124	*ib.*
Cropped area	125	*ib.*
Area under various crops	126	42
Experimental cultivation	127	*ib.*
Horticulture.		
Agri-Horticultural Societies	128	43
Experimental gardens	129	44
Forests.		
Forest Reserves	130	44
Demarcation and surveys	131	45
Working-plans	132	*ib.*
Communications and buildings	133	*ib.*
Forest offences	134	*ib.*
Protection of forests	135	*ib.*
Plantations and experimental cultivation	136	46
Extraction and sale of timber	137	*ib.*
Miscellaneous	138	*ib.*
Mines and Quarries.		
Grant of new concessions	139	46
Petroleum	140	47
Gold	141	*ib.*
Rubies	142	48
Other minerals	143	*ib.*
Quarry stones	144	*ib.*
Manufactures.		
Principal industries	145	48
Factories	146	49
Trade.		
Maritime Trade—Total value	147	49
Foreign Imports—Rangoon	148	50
Foreign Imports—Minor Ports	149	*ib.*
Foreign Exports—Rangoon	150	*ib.*
Foreign Exports—Minor Ports	151	51
Coasting Trade	152	*ib.*
Transfrontier Trade	153	52
Trade routes—Western China	154	*ib.*
Northern Shan States	155	*ib.*
Southern Shan States	156	*ib.*
Northern Siam	157	53
Southern Siam	158	*ib.*
Karenni	159	*ib.*
Public Works.		
General	160	53

	Para.	Page.
(i) Roads and Buildings.		
Communications	161	53
Metalled roads	162	*ib.*
Unmetalled roads	163	54
Communications—Miscellaneous	164	*ib.*
Buildings—Imperial	165	*ib.*
Buildings—Provincial	166	55
Miscellaneous	167	56
(ii) Railways and Tramways.		
Railways—Construction	168	56
Railways—Interruptions and accidents	169	*ib.*
Railways—Finance and traffic	170	57
Tramways	171	*ib.*
(iii) Canals.		
Navigation Canals	172	57
Irrigation.		
Major Works, Imperial— (i) Completed works	173	58
Major Works— (ii) Works under construction	174	*ib.*
Minor Works—Provincial	175	*ib.*
CHAPTER V.		
REVENUE AND FINANCE.		
Provincial Settlement.		
———	176	59
Gross Revenue.		
———	177	60
(*a*) IMPERIAL REVENUE AND FINANCE.		
Land Revenue.		
Land revenue receipts	178	60
Canal (Navigation and Irrigation) Revenue.		
———	179	61
Sources of Imperial Revenue other than the Land.		
Customs	180	61
Opium	181	*ib.*
Salt	182	*ib.*
Excise	183	62
Stamps	184	63
Assessed taxes	185	*ib.*
Forests	186	64
Imperial expenditure	187	*ib.*
(*b*) REVENUE AND FINANCE OTHER THAN IMPERIAL.		
Provincial Revenues.		
Provincial receipts	188	64
Provincial expenditure	189	65
Local Funds.		
Incorporated Local Funds	190	65
Excluded Local Funds	191	66
Road and Education Cesses.		
———	192	66
Municipal Revenues.		
Rangoon Municipality	193	67
Other Municipalities	194	*ib.*
Other Funds.		
———	195	68
Paper Currency.		
———	196	68
CHAPTER VI.		
VITAL STATISTICS AND MEDICAL SERVICES.		
Births and Deaths.		
Number of births and deaths	197	69
Causes of death	198	70
Emigration and Immigration.		
———	199	71

	Para.	Page.
Medical Relief.		
Hospitals and dispensaries	200	71
Attendance	201	72
Miscellaneous	202	74
Lunatic Asylums	203	*ib.*
Sanitation.		
Expenditure	204	74
Water-supply	205	75
Conservancy and drainage	206	*ib.*
Sanitary Board	207	*ib.*
Vaccination.		
———	208	75

CHAPTER VII.

INSTRUCTION.

General System of Public Instruction.		
General organization	209	77
Education Department	210	*ib.*
Government control	211	78
Schools and Colleges	212	*ib.*
Education Code	213	79
Administration	214	*ib.*
Inspection	215	*ib.*
Distribution of work	216	*ib.*
Classification of institutions	217	*ib.*
Colleges	218	*ib.*
Classification of schools	219	*ib.*
Definition of an Indigenous School	220	*ib.*
Special Schools	221	80
Reformatory School	222	*ib.*
Manual training	223	*ib.*
Standards of instruction	224	*ib.*
Vernacular Schools	225	*ib.*
Teaching of English	226	*ib.*
Management	227	*ib.*
System of aid	228	*ib.*
Indigenous schools	229	81
Training institutions	230	*ib.*
Education of special classes	231	*ib.*
Aid to European orphans	232	*ib.*
Pâli examinations	233	*ib.*
Examinations	234	82
Scholarships and prizes	235	*ib.*
Scholarships tenable in European schools	236	83
Engineering scholarships	237	*ib.*
St. Barbe's Scholarship and Bigandet Medical Scholarship	238	*ib.*
Bigandet Medal	239	*ib.*
Gilbert Scholarship	240	*ib.*
Railway Workshop apprentices	241	*ib.*
Text-Book Committee	242	*ib.*
Education.		
Number of schools and scholars and expenditure	243	83
Primary Education	244	84
Secondary Education	245	*ib.*
Collegiate Education	246	85
Technical Education	247	*ib.*
Training Schools	248	*ib.*
European Education	249	86
Education of special classes	250	*ib.*
Female Education	251	*ib.*
Insein Reformatory School	252	87
Literature and the Press.		
Publications registered	253	87
Presses, newspapers and periodicals	254	88
Literary Societies.		
———		88
Arts and Sciences.		
———	255	88

CHAPTER VIII.

ARCHÆOLOGY.

———	256	89

CHAPTER IX.

MISCELLANEOUS.

Ecclesiastical Jurisdiction.

		Para.	Page
———	... ...	...	90
	Ecclesiastical.		
———	... ...	257	90
	Stationery.		
———	... ...	258	90
	Chemical Examiner and Bacteriologist.		
———	... ...	259	90

REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR 1907-08.

PART I.

GENERAL SUMMARY.

Changes in the Administration.

The Hon'ble Sir Herbert Thirkell White, K. C. I. E., was Lieutenant-Governor of Burma throughout the year of report. Further improvements were carried into effect in several branches of the administration. The introduction of reforms and the re-organisation of the police force consequent on the report of the Police Commission of 1902-03 were practically completed. Separate Provincial and Subordinate Judicial Services were constituted in place of the Township Judicial Service. A new Sessions Division was created in Lower Burma and the existing divisions were re-arranged.

Frontier affairs.

2. Friendly relations were maintained with transfrontier authorities and no untoward incident of political significance occurred during the year. A raid was committed on the village of Wajao by an armed gang from Santa State in Chinese territory and four buffaloes were carried off in satisfaction of a "debt." Steps were taken to settle the case by negotiation with the Chinese authorities. The customary meeting with Chinese officials for the arrangement of outstanding cases was held with satisfactory results. On the Myitkyina border several incursions into British territory were carried out by Kachins from the unadministered tracts to the North. The most serious raid was committed by the Sana Kachins, who attacked the Military Police Post at Auchè in the previous year. In this raid an unoffending Gurkha with his wife, child and servant were murdered in cold blood. The feud between the Shandus and Kons living in unadministered territory between the Chins Hills and Northern Arakan which was mentioned in the last report was satisfactorily settled during the year.

The Shan States and Karenni.

3. The most important event of the year in the Shan States was the visit of His Excellency the Viceroy to Lashio. Steady improvement is recorded in all branches of administration and the reports indicate the progress of the country and the prosperity of the people. The attention of Government was directed to the difficult question of Forest Administration and steps are being taken with due care for the interests of the people to declare certain further areas to be reserved forests. Trade shows steady expansion and there are signs of development of the mining industry. The project for the construction of a railway into the Southern Shan States appears to be at last on the verge of realisation.

In Karenni the most important event was the death of Sawlawi, Chief of Kantarawadi.

The Chin Hills.

4. No events of importance occurred in the Chin Hills. The conduct of the tribes was good and crime was light. Successful efforts were made to withdraw unlicensed guns, and trade and cultivation are extending year by year. The creation of extensive forest reserves was undertaken during the year.

Realisation of land revenue.

5. The land revenue demand for the year rose by nearly $5\frac{1}{2}$ lakhs and collections exceeded those of 1906-07 by 8 lakhs. The expansion of collections was partly due to a decline in the amount of remissions which reached only half the total of the previous year. Outstandings show a distinct improvement. A noticeable decline is exhibited in the number of coercive processes of all kinds issued and in the amount of arrears on account of which action was taken. The only exception was in the case of sales of moveable property which increased to a small extent.

Surveys.

6. Number 7 Party of the Survey of India completed surveys in the Thayetmyo, Pegu, Yamèthin and Pyapôn Districts. The party is to be disbanded as it has been decided that in future all cadastral surveys should be carried out by local agency. As usual original and revision surveys were carried out by provincial parties in several districts. Progress was made with the large-scale surveys of important towns. Special fishery surveys were also undertaken in one or two districts.

Settlements.

7. Five settlement parties were at work during the year—three in Upper Burma and two in Lower Burma. Original settlements were in progress in the Pakôkku and Lower Chindwin Districts and revision settlements in four districts of Lower Burma and in two districts of Upper Burma. The expenditure on settlement operations amounted to four lakhs. During the year new rates consequent on settlement were notified in six districts resulting in an increased aggregate revenue demand of three and a half lakhs.

Land Records.

8. The area under supplementary survey was extended by 71 square miles but the area assessed by the Land Records Department was less than in the previous year. The cost of the Land Records establishment amounted to rather over twelve lakhs. A new survey school was opened at Mergui, but the total attendance at the Government schools again declined.

Transfers of land.

9. More land was sold and there were fewer mortgages than in 1906-07. The first result is attributed to the bad season in Upper Burma and the second to the favourable season in Lower Burma. The peculiar condition of the Hanthawaddy and Pegu Districts and the magnitude of the land transactions in these districts is dwelt on in the Land Revenue Administration Report. A noticeable feature is the continued rise in the value of land. In several cases fluctuations in the figures are ascribed to the action or anticipated action of Government in respect of the alienation of land to non-agriculturists. The question whether legislation is called for in order to preserve agricultural land to the agriculturist is still under consideration. A Land Alienation Bill has been drafted but no final conclusions have been arrived at.

10. The area of land granted or leased for cultivation showed a further decline owing to the contraction of culturable waste within easy reach and to the suspension of pottas in certain districts. The largest area was granted in the Kyaukpyu District. The area granted free for religious edifices was practically the same as in the previous year while grants for public purposes where more restricted. Greater use was made of the provisions for granting *thugyisa* land to village headmen. Disposal of waste lands.

11. The tendency for land to pass into the hands of non-agriculturists continues and the proportion of absentee landlords has also increased. Under this heading the remarkable rise in the value of land which has already been commented on is again apparent. An attempt is being made to protect the agricultural tenant against rack-renting and arbitrary eviction, and the consent of the Government of India has been obtained to introduce a Burma Tenancy Bill into the Council of the Lieutenant-Governor. The Bill contains certain provisions which in the absence of special agreement are to apply to all agricultural tenancies. It also provides for special conditions on estates notified by Government in this behalf. In such estates it creates a status of protected tenant. Any tenant who obtains this status is protected against enhancement of rent or ejectment against his will except with the consent of a Revenue Officer. The Bill will come before the Local Legislative Council at the next session. Its provisions will not apply to the whole Province but it is proposed that the Local Government should be given power to apply the whole or any part to specially designated areas. Revenue and rent-paying classes.

12. Six Bills were passed by the Burma Legislative Council during the year ending the 31st March 1908. The Burma Village Act, 1907, consolidates village administration throughout the Province, and takes the place of the Lower Burma Act of 1889 and of the Upper Burma Regulation of 1887. By the Lower Burma Courts Act Amendment Act, 1907, a right of appeal is allowed to the Chief Court from decisions of the Court of Small Causes, Rangoon, where the value of suits exceeds Rs. 1,000. The Burma Defile Traffic Act regulates traffic on the Upper Irrawaddy. The object of the Rangoon Victoria Memorial Act, 1908, is to provide for the management and maintenance of the Victoria Memorial Park in Rangoon. The other two Acts effected minor amendments in the Burma Municipal Act, 1898, and in the Burma Towns Act, 1907. Two Regulations applying to Burma were promulgated during the year, namely, the Upper Burma and Arakan Hills Frontier Crossing and Disturbed Districts Regulation, 1907, and the Upper Burma Land and Revenue (Amendment) Regulation, 1907, and several enactments were extended to the Shan States. Legislation.

13. Further steps were taken during the year to carry into effect the re-organization of all grades of the Police Department consequent on the recommendations of the Police Commission of 1902-03. With trifling exceptions all the reforms sanctioned by the Government of India have now been brought into force. In the course of the re-organization the distribution of the force was carefully revised district by district, the net result being an addition to the strength of 119 Sub-Inspectors, 1,035 head constables and 202 constables. Among the more notable incidents of the year may be mentioned an abortive rising in the Shwebo District, the escape of ten prisoners with ten rifles from the Kungyangôn Police-station Police.

and an attack by Kachins from beyond the administered frontier on the Military Police post at Auchè in the Myitkyina District. The statistics of the year indicate a satisfactory decrease in the total volume of crime. So far as can be judged the number of true cases reported to the Police does not tend to increase in proportion to the growth of wealth and population. On the other hand there was an unwelcome rise in the number of dacoities and robberies and in the number of crimes in which fire-arms were used. The efforts of the Police and of District Officers in dealing with gangs of dacoits were vigorous and successful and several organised gangs were completely broken up. The large decrease in the number of prosecutions under the preventive provisions of the law may be regarded as satisfactory. Consideration of the year's work leads to the conclusion that while there is a tendency to an increase in serious crime, police work is being zealously and efficiently done. It is believed that police officers realise their responsibilities, that recent reforms have already operated to increase the efficiency of the force in all ranks and that gradual but marked improvement in results may be expected. The Military Police continued to be efficient and useful. Towards the end of the year a substantial increase to the Lower Burma Military Police was sanctioned and the distribution of that force was revised. Orders were issued during the year to ensure the more efficient working of Military Police patrols.

Criminal Justice.

14. An additional appointment of Divisional and Sessions Judge was sanctioned and the Thayetmyo District was transferred from the Bassein to the Prome Sessions Division. The redistribution of offices in Rangoon, which was effected at the beginning of the year under review, resulted in the appointment of a District Magistrate whose functions are entirely of a judicial or quasi-judicial nature. The arrangements for the administration of Criminal Justice in Rangoon were carefully examined and it is believed that improvements have been effected. The District Magistrate was able to take a substantial part of the more important criminal judicial work. The reports of the year bring to notice the failure of Magistrates to make sufficient use of the power to dismiss complaints under section 203 of the Code of Criminal Procedure, 1898, and the need of making fuller use of the provisions of section 562 of the Code for the release of first offenders. The practice of passing short sentences of imprisonment is still too common and in Upper Burma the number of persons summoned as witnesses and not examined was unduly large. The volume of criminal work of a more important nature decreased in Lower Burma and somewhat increased in Upper Burma. The Honorary Magistrates, especially in Rangoon and Mandalay, continued to do good work and to afford substantial relief to Stipendiary Magistrates.

Prisons.

15. There was a further increase in the jail population of the Province in 1907, but the increase was not so marked as in the previous year. An actual decrease is recorded in the number of prisoners admitted. The total daily average rose, and the total population at the close of the year amounted to 14,304. The total accommodation available, though it shows a slight decrease from the figures of the previous year in consequence of the closing of the Taungdwingyi jail and the reduction in the number of prisoners assigned to the Ma-ubin jail, is still quite sufficient. The average cost of maintenance per head was less than in 1906.

But as there was also a decrease in the cash earnings per head of average strength the net cost per prisoner rose slightly. Some progress was made during the year in formulating proposals for the separation of habitual from casual prisoners, and the structural alterations required for effective separation are being carried out in jails where it is possible to secure the end in view without undue expenditure. The supervision of habitual prisoners by convicts of their own class has been definitely abandoned and it is proposed to introduce instead a system under which habitual convicts will be supervised exclusively by paid warders. This change involves considerable expense and it cannot be introduced immediately in all the jails of the Province. The employment of an increased number of paid warders for the supervision of habituals in the Mandalay, Insein and Myingyan jails has been sanctioned, and for the present casual convict officers will be employed for the purpose in other jails. The jail at Meiktila has now been set apart for juvenile prisoners and arrangements are being made to provide separate accommodation for juvenile first offenders and juvenile habituals. The number of juvenile prisoners admitted to jail in the year fell from 171 to 89. The continued improvement in the health of the jail population must be regarded as very satisfactory. Both the ratio of admissions to hospital and the rate of mortality have decreased steadily in recent years. These successful results are due to the close attention which has been devoted to the sanitary and medical management of jails by Superintendents and to the careful supervision of the Inspector-General. Another satisfactory feature is the further reduction in the total number of offences committed by convicts, and, in particular, the smaller number of offences relating to assaults, mutinies and escapes. The total number of actual escapes fell from 12 to 6.

16. One of the most important measures brought into effect during the year was the constitution of the Provincial Judicial Service. As far as possible the Provincial and Subordinate Judicial Services have now been placed on the same footing as the corresponding executive Services ; and officers who elect to serve in the judicial branch have similar prospects to those of executive officers. It is hoped that this will result in an improvement in the Subdivisional and Township Courts which dispose of the bulk of the litigation affecting the mass of the people : and there is reason to believe that the process of improvement has begun. Consistent efforts have been made to raise the standard of efficiency and integrity in the case of judicial officers, and officers of all classes have helped in the attainment of this end. During the year an additional appointment of Divisional Judge was sanctioned, the pay of the first grade of Divisional Judges was raised, and a number of subordinate Judgeships were created. The cost of all Courts, Civil, Criminal and Revenue, rose from 45 to 50 lakhs. The year's figures show a considerable falling off in the volume of civil business for which no clear explanation has been put forward. The state of business in the Chief Court and in the Court of the Judicial Commissioner of Upper Burma is somewhat congested. It has been represented that in both cases permanent addition to the strength of the Courts is required. In the case of the Chief Court, the subject is under the consideration of Government. A temporary arrangement has been made to enable the Judicial Commissioner of Upper Burma to clear off the arrears which have accumulated in his Court. It is not clear that permanent relief is required in Upper Burma at present. If litigation continues to decrease, as it

Civil Justice.

decreased in the past year, and if some limitation in the facility of appeal in petty cases is introduced, the present arrangement may be found sufficient for some time to come.

Registration. 17. The number of compulsory registrations in Lower Burma shows a decided falling-off which is generally attributed to restrictions imposed by Government on transfers of land to non-agriculturists. The number of instruments of sale registered in Lower Burma exceeded the number of mortgages registered ; whereas in previous years mortgages have usually outnumbered sales by some 40 per cent. One of the chief causes assigned for this is the sale of mortgaged lands by Chetties, who are said to be restricting advances on landed property and realizing outstanding advances. In Upper Burma there was some expansion in the number of documents compulsorily registered coupled with an extraordinary rise from 49 to 164 lakhs in the value of transactions. The increase in value was due to abnormal activity as regards the transfer of oil sites and wells on the Yenangyaung oil field.

Municipal Administration. 18. The number of municipalities in the Province remained at 44. In the Rangoon Municipality the tax on bullock carts was increased and a tax on dogs was sanctioned. Increased expenditure has been accompanied by a gratifying increase of activity in many directions. Some of the problems which the Committee have to face are the question of milk-supply, the housing problem, the enforcement of building regulations and the improvement of the roads. Plague was less prevalent and the spirit with which the people of Rangoon have accepted plague measures as well as the tact shown by plague subordinates deserve commendation. The work of the Vaccination staff was satisfactorily carried on. Further powers are needed by the authorities in respect of Vaccination and legislation is contemplated. The work of reclamation progressed steadily during the year.

In the remaining 43 Municipalities plague has again had an injurious effect on the finances of Municipalities, and many important and necessary schemes for the improvement of sanitary conditions have had to be abandoned or postponed for want of funds. For this reason the grant of 3 lakhs made from Imperial Funds in the current year for expenditure on sanitary improvement is particularly welcome. This grant is to be a recurring one, and with its aid it should be possible gradually to effect a general improvement of sanitary conditions in the larger towns throughout the Province. Schemes for water-supply and drainage will have the first claim for aid from the grant, but applications for aid in support of any other proposals for sanitary improvement will be carefully considered. Municipalities have been generally administered with efficiency, and for the most part members of Municipal Committees, both official and non-official, take an interest in the affairs of their towns.

Military. 19. The expenditure on Military works declined by about 13 per cent., but the figure was still high compared with previous years. The greater part of the expenditure was incurred in completing the accommodation for troops at Maymyo. The year was a prosperous one as regards Volunteering and both the total strength of the Volunteer Corps and the number of efficient Volunteers show noticeable improvement.

Marine. 20. In spite of a slight decrease in the number and tonnage of vessels entering the port, the ordinary revenue of the Rangoon Port Trust in 1907-08

considerably exceeded the revenue of the preceding year. This satisfactory result is largely due to the imposition of a river due of one and a half annas a ton on imports and exports which was sanctioned in August 1907 and from which nearly two lakhs were realised during the year. The capital expenditure amounted to Rs. 22,57,205, of which 16½ lakhs were spent on extensions to wharves. The new wharves, in the equipment of which recourse has been had to the latest developments of engineering science, are worthy of a great port, and should be highly appreciated by the shipping and mercantile community. In other directions the activities of the Port Commissioners have been devoted to the preparation of schemes which are likely to bear fruit in the near future. A final decision on the River Training Scheme has not yet been arrived at. Shipping figures for the Province indicate some decline in the numbers of vessels arriving from foreign ports compensated by continued expansion of the coasting trade. A steamer was wrecked on the Arakan Coast near Akyab. The small number of casualties which occurred to vessels in charge of pilots during the year is satisfactory.

Agriculture.

21. The new Agricultural Department settled down to work during the year and the Director reports a gratifying increase of interest in the doings of the Department on the part both of Government officials and of the general public. The returns of live stock show a general increase of numbers. In some districts the gradual substitution of bullocks for buffaloes is observable. Cattle disease was much less prevalent than in the previous year. Arrangements are being made for holding cattle shows under the management of the Agricultural Department. Prices of paddy and of other crops were generally much above the normal figures. Larger advances were made by Government to cultivators in the shape of agricultural loans and there was a considerable increase in the amount outstanding on this account. The result of the work of the past two years indicates that the Co-operative Credit movement has attracted much attention among Burmans, and it has every prospect of becoming a vital and efficient factor in the solution of various problems connected with agricultural progress and development. It is gratifying that it has been found possible to establish Societies without pecuniary aid from Government, and that the credit of the Societies has attracted offers of larger sums as deposits than the Societies have been able to accept. One essential necessity, at the outset, is that the constitution and working of the Societies should be closely supervised in order that there may be no risk of failure in the fulfilment of their obligations. This is clearly recognized by the Registrar. It may now be held that the Co-operative Credit system has passed beyond the experimental stage. There is good reason to believe that it is suited to the temperament and needs of the people of Burma. Subject, therefore, to the limitations imposed by the necessity of close supervision, the formation of new Societies will now be encouraged and the injunction to proceed on experimental lines will be relaxed. But it is not intended that more Societies should be formed than can be properly controlled and guided by the Registrar and such of his assistants or other officers as are qualified to undertake that part of the work. A small extension of the cultivated area protected by artificial embankments resulted in a corresponding improvement in the net revenue derived from this source. The growth of the irrigated area in Upper Burma due to the development of the Government canal systems is noticeable.

Weather and crops.

22. In Lower Burma the agricultural season was on the whole favourable and the outturn of rice was little below the normal figure. The season in Upper Burma; on the other hand, especially in the dry zone, was one of the worst experienced in recent years and crop outturns were very poor. A moderate extension of the cropped area was chiefly due to natural expansion of paddy cultivation. The remarkable spread of ground-nut cultivation continued and there was a considerable expansion under the head of jowar. On the other hand the cultivation of wheat showed signs of contraction.

Experimental cultivation.

23. The Mandalay Agricultural station was fully worked and something was done at Hmawbi; but the operations of the new Agricultural Department were curtailed owing to lack of funds. Several very interesting experiments were carried out. The most important related to the possibility of growing crops other than paddy on ordinary soils in Lower Burma and to the introduction of "moisture-resisting" paddy seed into the Akyab District. The latter experiment promises well.

Horticulture.

24. The management of the Government experimental gardens has been taken over by the Agricultural Department and steps were taken during the year to place them on a sound footing. The Rangoon Horticultural Society had a prosperous year but the Moulmein Society is said to be in a moribund condition.

Forests.

25. Satisfactory progress was made in the reservation of forests and in the examination of areas suitable for reservation. The question of preserving forests and re-afforesting arid areas for climatic reasons has occupied the attention of Government for some years past. Effective steps have been taken to limit the destructive effects of *taungya* cultivation without inflicting undue hardship on people practising this method. The policy of restricting the direct extraction of timber by the Forest Department was adhered to during the year. It is believed that the more systematic working of the forests by large contractors and the relief afforded to forest officers will in the end yield satisfactory results, financially and otherwise. Relations between District and Forest Officers have, on the whole, been cordial. There is reason to believe that the Forest law is administered leniently, and it is desirable that this should continue to be the rule. It is essential that the people should be made to understand, if possible, that forest administration is undertaken for their ultimate advantage and not as a method of harassing them in small ways. The improvement in the status and qualifications of the subordinate staff, which has now been carried out, will, it may be hoped, effect a material improvement in the relations between the Forest Department and the people.

Mines and Quarries.

26. The returns relating to Mines and Quarries present no very striking features, but they indicate steady development of the mineral resources of the country. The Mount Pima Mining Company, which proposes to work galena and copper in the Yamèthin District, attracted some attention. Gold dredging operations were continued in the upper reaches of the Irrawaddy with fairly satisfactory results. The outturn of rubies improved, but depression in the gem market greatly reduced the profits of the Ruby Mines Company. The yield of petroleum increased again after the set-back of the previous year. Some of the wells are said to show signs of exhaustion; but new wells are continually being opened out. Tin mining was less successful owing to insufficient rainfall. Coal is to be found in many places and prospecting still goes on, but paying

works are still to seek. The opening out of extensive stone quarries near Kyaikto and on Kalagauk Island is worth mention.

27. The staple industries of the country remain as in previous years. The factory returns showed fair progress in the establishment of large industries, the growth in the number of rice mills being specially noticeable. Manufactures.

28. The extraordinary expansion of the maritime trade of the Province which was a feature of the previous year was more than maintained during 1907-08. The total value of the trade rose by 16 per cent. The improvement was shared nearly equally between the foreign and the coasting trade, and both imports and exports contributed to the result. The expansion of exports was due mainly to larger shipments of rice to foreign countries and to India. The growth of the import trade may be attributed to the increasing prosperity of the country. Sea-borne Trade.

29. The inland trade of the Province with foreign countries and with the tributary States and tribes on the external frontier was also in a healthy state and showed satisfactory signs of development. The total value of the trade, which is small compared with the maritime trade, increased by 9 per cent. Transfrontier Trade.

30. A change in the classification of buildings of some importance was carried out with effect from the 1st April 1907, buildings belonging to certain Imperial Departments being transferred from the Provincial to the Imperial list. The total outlay on Public Works from all sources was slightly in excess of the figure of 1906-07. Practically, the same sum was spent on Provincial Civil Works as in the previous year, but it must be borne in mind that the change of classification referred to causes an apparent reduction of expenditure under the head of Provincial Buildings. Expenditure on Communications again declined owing to less being spent on new metalled roads. The bridge over the Sittang River at Toungoo was opened during the year. Progress was made with various important building operations in Rangoon. Work on the new Chief Court and the General Hospital advanced a stage, extensive additions were made to the Currency Buildings, and the foundations of the Press Building were completed. In the mofussil the new Jail at Moulmein was finished and progress was made with the Police Training School at Mandalay. Public Works—(i) Roads and Buildings.

31. The Pegu-Martaban extension of the Burma Railways, 121·27 miles, was opened during the year, as well as 13½ miles of the Henzada-Kyargin branch line. Progress was made in doubling the track on the main lines where traffic is congested. Important surveys of projected lines were also carried out. The only serious interruption of traffic was due to the dismantling of two miles of the Tharawaw Branch in anticipation of exceptional floods which, however, came to nothing. The capital expenditure on the railway system amounted to nearly 100 lakhs, more than double the figure of 1906-07. The net earnings exceeded 70 lakhs, an improvement of nearly 11 lakhs on the previous year. The Thatôn-Duyinzeik Tramway was closed in consequence of the opening of the Pegu-Martaban Railway. The Rangoon Electric Tramways had a prosperous year, while the affairs of the Mandalay concern were less satisfactory. Progress was made with the construction of the Madaya light railway in the Mandalay District. Public Works—(ii) Railways and Tramways

Public Works—(iii) Canals.

32. The Pegu-Sittang and the Sittang-Kyaikto Canals remained open for navigation. Traffic improved on the former and declined on the latter. Leaving out of account the original cost of the canals a small profit was earned on their working.

Irrigation.

33. A large expansion of the irrigated area in Upper Burma was due to the development of the Mandalay and Shwebo Canal systems, and a corresponding increase of revenue was derived from these works. Moderate progress was made on the construction of the Môn Canals, but very little work was done during the year on the Ye-u Canal.

Provincial Settlement.

34. A new Provincial Settlement on a *quasi*-permanent basis was introduced with effect from the 1st April 1907. Some important changes were made in the distribution of Revenue and Expenditure between Imperial and Provincial Funds. An initial grant of 50 lakhs was made to Provincial Revenues and a standard figure of 439½ lakhs was adopted for the revenue and expenditure of the Province as compared with 331⅓ lakhs, the standard figure of the previous settlement.

Gross Revenue.

35. The gross receipts of the Province, including Imperial, Provincial and Local Funds exceeded the revenue of the previous year by only a lakh of rupees. The Imperial share increased by 47 lakhs mainly due to the revised terms of the new Provincial Settlement, while the Provincial share underwent a corresponding decline of nearly 32 lakhs. A deficiency of 14 lakhs is shown in the receipts of Local Funds. The gross expenditure of the Province was two lakhs below the figure of 1906-07.

Imperial Revenue and Finance—Land Revenue.

36. The gross land revenue of the Province exceeded that of the previous year by only one lakh. The ordinary land revenue demand exceeded that of 1906-07 by nearly 5½ lakhs. On the other hand remissions and outstandings showed further improvement and in consequence collections increased by over eight lakhs. Receipts from capitation tax improved by nearly a lakh owing chiefly as in the previous year to stricter assessment of Chittagonian coolies in the Akyab District. The number of households assessed to *thathameda* showed some expansion, but reduced rates and remissions resulted in a decline of 8½ lakhs in the amount collected. Fishery revenue fell off by half a lakh owing to the unfavourable season in Upper Burma and to the effect of previous bad years in Lower Burma.

Customs.

37. Customs receipts showed an improvement of 11 lakhs on the figure of 1906-07 owing to the expansion of trade and larger shipments of rice to Europe.

Salt.

38. A special enquiry into the local conditions of the Salt industry was in progress during the year. Pending its completion, the Local Government has abstained from taking any action which might prejudice a decision on any of the points under investigation, and there was therefore no change of policy in any direction during the year. The figures show a considerable increase in the estimated consumption of salt in the Province and a corresponding expansion of revenue derived from this source. There was some extension of local production, but the larger demand was chiefly met by increased imports from foreign countries. Consignments of salt were received for the first time from Egypt and from Asiatic Turkey.

39. Important questions of Excise policy and administration have occupied the continuous attention both of the Excise authorities and of the Local Government, but final orders had not been passed in many cases by the close of the year. Perhaps the most satisfactory feature in the year's work has been the continued decrease in the consumption of Government opium. Although this decrease may be accompanied by an increase in the amount of smuggled opium consumed, there is no good reason to think that this is the case. It may be regarded as certain that the practice of hawking shop opium, which used to be one of the chief defects in the existing system, has received an effectual check. This result is no doubt largely attributable to the restriction of issues in accordance with the probable requirements of consumers and their estimated means. Measures for the prevention of opium smuggling continued to receive special attention. The Contract Distillery system was extended, and further extension is in contemplation. But it is reported that illicit distillation is still prevalent. With the increase in the Excise establishment which, it is hoped, will be sanctioned, active measures for the suppression of illicit distillation will be possible. Imports of foreign liquors continued to increase. The number of prosecutions under the Excise Act was practically stationary, and there was a slight decrease in the percentage of convictions. The financial results of the year were satisfactory, the revenue having increased and the expenditure decreased. Opium and Excise.

40. The revenue from Stamps continued to increase, but the rate of expansion was less rapid than in previous years. The proportion of the total receipts derived from the sale of Court-fee Stamps in Rangoon rises steadily indicating the importance of Rangoon as a centre. The general impression created by the stamp statistics is that of a check in development. Land speculation in Rangoon Town and in the Amherst and Thatôn Districts is on the decline. Throughout the Province money-lenders in general, and Chetties in particular, are calling in their advances. The general attitude is one of caution. Nor is the resumption of the previous rate of increase to be expected. A more sober and steady progress is to be anticipated when the land policy of Government is better understood and when the losses of unsuccessful speculators are liquidated. The gains of the Delta cultivator are likely to swell the revenue in one form or another. Stamps.

41. The normal growth of receipts under the Income-tax Act was maintained. The increase in the collections does not indicate more than a moderate rate of increase in the wealth of the Province, and a comparison of the figures relating to the tax assessed on the profits of companies leads to a similar conclusion. In some districts there was a falling off owing to the prevalence of plague and other temporary causes. Assessed Taxes.

42. The revenue returns of the Forest Department show some recovery after the serious decline of the previous year. Receipts, 88·33 lakhs, were nearly two lakhs better than those of 1906-07; expenditure was somewhat less and the surplus rose from 50 to 52¾ lakhs. Forests.

43. Imperial expenditure in the Province increased by a lakh and a half. Apart from variations due to changes of classification less was spent on Military Works while more expenditure was incurred on Customs and Irrigation. Imperial Expenditure.

Provincial Revenues.

44. Provincial revenues diminished to the extent of 31½ lakhs. The bulk of these receipts are derived from heads which are shared with Imperial Funds and variations are chiefly due as already explained to changes of classification consequent on the introduction of the new Provincial Settlement. Expenditure from Provincial Funds exceeded the income of the year by over 30 lakhs and the expenditure of the previous year by 18 lakhs. Owing to the growing needs of the administration enhanced outlay was incurred in nearly all the principal departments, especially under Police and Courts of Law; but expenditure on Public Works and Forests was practically the same as in the previous year.

Local Funds.

45. The principal Incorporated Local Funds are the District Cess Funds in Lower Burma and the District Funds in Upper Burma. A moderate increase of revenue is reported while expenditure declined. Of Excluded Local Funds the principal is the Rangoon Port Trust which is dealt with elsewhere. Of the remaining Excluded Funds the most important are the Cantonment, Town and Minor Port Funds. On the whole these funds had a prosperous year with increased income and smaller expenditure.

Municipal Revenues.

46. The financial position of the Rangoon Municipality still points to the need of fostering the revenues and exercising rigid economy in expenditure. Although there was a substantial increase in revenue, there was an almost equivalent increase in expenditure; and it is likely that charges will tend to expand more rapidly than receipts. Both the income and expenditure of minor Municipalities increased over the figures of 1906-07; but the expansion of charges was less than that of receipts. The Municipal Funds are solvent, but more money is required to enable them to carry out necessary schemes of improvement.

Births and Deaths.

47. The registration of births in non-municipal towns and rural areas in Upper Burma was undertaken in eleven districts from the 1st January 1907. The additional population dealt with was over 2½ millions, or nearly 50 per cent. of the population for which statistics had been recorded in previous years. There are however still considerable areas both in Lower and Upper Burma in which the registration of vital statistics is incomplete. The chief features of the death statistics regarded as a whole are the high rates of infantile mortality especially in towns and of the mortality in towns as compared with the rural areas. It is probable that the difference between the death rates in towns and rural areas is in part due to the more accurate registration in towns. The total number of deaths from cholera in the Province during 1907 was 8,378 as compared with 7,872 in the previous year. The returns show a large reduction in mortality from small-pox. The deaths in 1907 numbered 2,882 as compared with 8,540 in the previous year and 6,161 in 1905. The total number of deaths from plague in 1907 was 9,249 as compared with 8,637 in the previous year. The increase was therefore only 7 per cent., whereas the increase in 1906 was over 100 per cent. as compared with 1905. The epidemic is still confined for the most part to the larger towns and there were 8,454 deaths in towns as compared with 795 in rural areas. Over half the total number of deaths occurred in Rangoon and Mandalay. Of the 40 towns in Lower Burma 21 were affected in 1906 and 27 in 1907. It is reasonable, however, to suppose that the information of the deaths from plague grows more accurate each year, and therefore, that the epidemic of

1907 was in reality little, if at all, in excess of that of the previous year as regards either intensity or extent. Nearly half the total number of deaths recorded in the Province are entered under the head of fevers. This figure no doubt includes a large number of deaths due to causes other than malarial fever, but it is certain that this cause is responsible for a heavy mortality. A very large increase in the sales of quinine in the Province is a satisfactory feature of the year's record.

48. The returns of the year show a smaller movement of population into and out of the Province than in the previous year. The addition to the population due to these causes combined was below the normal figure. Emigration and Immigration.

49. During the year under review 14 new hospitals and dispensaries were opened in the Province. The total number at the end of 1907 stood at 227. The increase has been steady, but there are still many places where a hospital is required and many of the existing buildings do not satisfy modern medical requirements. In many cases the Municipal and Town Committees in Lower Burma are unable, even with the help of substantial contributions from Provincial Funds, to find the money for an ideal hospital. The total number of patients continues to increase, but Hindus and Mahomedans have supplied the greater number of additional patients and the number of Burmese patients was lower in 1907 than in any of the previous four years. The ratio of attendances for Burmese males and females, 75 and 40 per mille respectively, is very small especially when compared with the ratios of attendance in the case of other races both in Burma and in India. Proposals for the establishment of a Pasteur Institute in Burma were received with much enthusiasm at a public meeting held in Rangoon in September 1907 and over a lakh of rupees has now been subscribed for this purpose. Plans for the building have been prepared, and it is hoped that in the near future the establishment of an institute in Burma will be an accomplished fact. The difficulty experienced in obtaining Hospital Assistants is the most serious of all questions connected with the medical requirements of the Province. Attempts have been made to meet the difficulty by the offer of bonuses and scholarships to students of Medical Schools in India. But the establishment of Hospital Assistants is still 43 below strength, and is composed for the most part of natives of the Punjab and Madras. The establishment of a Subordinate Medical Service in which the majority of members shall be natives of the Province is a pressing need. At present Burmese patients provide only about half the total number of patients in the hospitals although 88 per cent. of the total population are Burmese, and there seems to be no doubt that this result must be attributed largely to the fact that so large a proportion of the subordinate medical staff are not natives of the Province. A Government Medical School was opened in Rangoon in February 1907 for the purpose of training Burmans and Karens as Hospital Assistants and it is hoped that the school will be a success. Medical Relief.

50. During the year of report some 25 Municipal Committees adopted bye-laws for the improvement of sanitary conditions by the regulation of the sale of articles of food and drink, the prevention of overcrowding, or the prohibition of buildings of an insanitary type. In the larger towns the need for sanitary improvement is recognized by Municipal Committees, but they are hampered Sanitation.

partly by want of funds and partly by the passive opposition of the people who do not yet appreciate the ideals of sanitary service. The need of assistance from Provincial Funds has been freely recognized, but financial exigencies have prevented the grant of aid to the extent which could be desired. The annual grant from Imperial Funds of three lakhs of rupees, which has been placed at the disposal of the Local Government for sanitary improvement in towns, will therefore be of great service in enabling schemes to be carried out which without such assistance would probably be delayed for many years. The water-works at Akyab are approaching completion and there is a prospect that a scheme for providing a good water-supply at Mandalay, which has been under discussion for many years, will at last be approved and undertaken. One of the most urgent needs of the Province is the provision of a subordinate sanitary service consisting of men who have received an adequate technical training. The question of organizing such a service has been under discussion with the Sanitary Commissioner for some time, and proposals have now been submitted to the Government of India for its institution. The separation of the office of the Sanitary Commissioner from that of the Inspector-General of Civil Hospitals has been rendered necessary by the great increase in the sanitary work of the Province and by the need of provision for its further extension. A separate Sanitary Commissionership was sanctioned by the Secretary of State at the end of 1907 and Major C. E. Williams, I.M.S., was appointed to the new post in January 1908.

Vaccination.

51. Both the total number of vaccinations performed and the average number of operations per vaccinator show some reduction in the year of report. This result may be attributed, in part at any rate, to improved supervision of the returns. The appointment of additional Native Superintendents continues steadily and the number of inspections done by them represents a very large advance on the figures of previous years. In some towns and villages it is said that the people are hostile to vaccination, and the Sanitary Commissioner is inclined to attribute this attitude to inefficiency and want of tact on the part of the vaccination staff. Inoculation is still practised freely in rural areas and is reported to have caused outbreaks of small-pox in several districts. Nevertheless there is good reason to believe that the people of this Province as a whole have no strong objection to vaccination in itself. When they prefer inoculation it is partly because inoculation is an established practice and vaccinators are not always available, partly because vaccination has not always given good results. A Bill has recently been passed for the purpose of empowering the Local Governmnet to prohibit inoculation in any rural area. It is not intended to introduce this enactment into all parts of the Province at once, for until the Vaccination Department is rendered thoroughly efficient it is not reasonable to make inoculation a penal offence. At first therefore its operation will be confined to the districts of Pegu and Hanthawaddy, where the vaccination staff is being reorganized. By degrees, as full facilities for vaccination are provided and as the confidence of the people is gained, the measure will be applied to other districts and in time there is no reason to doubt that the practice of inoculation will be as dead in Burma as it is in Europe. It is not intended to make vaccination compulsory in rural areas. In Rangoon the serious outbreak of small-pox which occurred in the year 1905-06 resulted in a

great increase of activity as regards vaccination. Since this epidemic the Municipal Committee have given their attention to the improvement of the arrangements in connection with vaccination, the staff has been reorganized, new vaccination stations have been built at convenient places in the town, and the supply of lymph has been much improved. A Bill will shortly be introduced into the Legislative Council to afford additional facilities for the vaccination of immigrant coolies.

52. The year under review was one of activity in the Education Department and progress was made in carrying out various improvements and reforms. Effect is being given to the change of policy in accordance with which a more direct part is taken by Government in the management of Colleges and Schools. Arrangements for taking over several Municipal Schools were nearly completed. Want of funds interfered with projects for building Government Schools. An interesting experiment has lately been projected for the Arakan Division where in some respects education is in a backward state. It is proposed to establish Vernacular Schools in the first instance at Township Headquarters, to be built and supported at the cost of the District Cess Fund. The report indicates no actual advance in Secondary Education. The number of students in Colleges and High Schools has not increased. It cannot be denied that the special need of this Province is the local extension of Secondary Education on sound principles, and the slowness of progress is disappointing. The two Colleges are being placed on a better footing and the establishment of Government High Schools, Anglo-Vernacular and Vernacular, as Model Schools under highly-qualified masters, in the larger districts, will afford additional facilities for, and encouragement to, higher education. With a view to the direct encouragement of University Education it was decided, as an experimental measure, to appoint to the Subordinate Civil Service, on application, any Burman student who takes the degree of B.A. and is reported in other respects to be qualified for appointment. An important step was taken during the past year in the establishment of an Anglo-Vernacular High School Final Examination. It has been decided that this examination shall take the place of the Matriculation or Entrance Examination in cases where the passing of that examination is at present a qualification for Government Service. Primary Education made some progress as regards the number of institutions and pupils during the past year. As is well known elementary instruction is widely diffused and the majority of Burman boys learn at least to read and write. Of late years, special attention has been paid to Vernacular Education. An important reform was effected during the year in the improvement of the position of officers of the Indian Educational Service in Burma. These officers have now been placed on the same footing as officers of the same service in other Provinces. This measure can hardly fail to stimulate the efficiency of the Educational Department. The number of Inspectors has been increased and instead of being centred for the most part in Rangoon Inspectors have been distributed throughout the Province at divisional headquarters, and made more fully responsible for the direction of Education in their circles. The strengthening of the subordinate Inspecting Staff is also a matter which is receiving attention. The education of girls and young women is still in a comparatively backward state and the number of Government Schools in which girls are more numerous than boys is very

Education.

small. Proposals have been made for the appointment of an Inspectress and Assistant Inspectress of Schools. Among other matters which have attracted special notice during the past year is the question of introducing the study of hygiene or elementary science into all schools. The importance of this question is fully realized and it has been commended to the attention of the Director whose final report is awaited. The subject of moral training is one of even greater difficulty. That the formation of character is one of the main objects of education is a truism. But it is open to question whether the actual teaching of morals in schools is best adapted to attain the desired end. It is doubtful whether text books and categorical moral lessons are of much value. Rather is it likely that this branch of education depends almost entirely on the personality of the teacher and on home influences.

Archæology.

53. Action was taken during the year under the Ancient Monuments Preservation Act with a view to the protection of monuments of historic and architectural interest. Archæological operations were curtailed owing to lack of funds ; but current repairs were carried out and the conservation of eleven additional buildings was taken over by Government. The examination of the Seinnyet Pagoda in the Pagan Township and the survey of the site of ancient Prome yielded interesting results.

BURMA SECRETARIAT, *the 9th December 1908.*

PART II.

Note.—The departmental reports and other references on which this Report on the Administration of Burma is based are noted at the beginning of each Chapter. The departmental reports do not all cover the same period. The reports on the Administration of Civil and Criminal Justice, the Police, Prisons, the Registration Department, the Salt Revenue, the Reports on the Insein Reformatory School, Measures adopted for the extermination of Wild Animals and Poisonous Snakes, Lunatic Asylums, the Report of the Chemical Examiner and Bacteriologist, the Report on the working of the Government Medical School, Rangoon, the Resolution on the Reports on Village Administration in Burma, and the Resolution on the Reports on the working of the Indian Factories Act in Lower Burma, deal with events which took place within the calendar year 1907; the Shan States, Chin Hills and the North-Eastern Frontier Reports, the Land Revenue, Land Records, and Forest Administration Reports, the Season and Crop Report, the Report on Co-operative Credit Societies, and the Report of the Department of Agriculture are concerned with the agricultural year from the 1st July 1907 to the close of June 1908. All other reports cover the twelve months of the official or financial year that ended on the 31st March 1908.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

REFERENCES—

Report on the Administration of the Shan States for the year ended the 30th June 1908.
Report on the Administration of the Chin Hills for the year ended the 30th June 1908.
Report on the Administration of the North-Eastern Frontier of Burma for the year ended the 30th June 1908.
Season and Crop Report of Burma for the year ending the 30th June 1908.

Physical Features of the Country Area Climate Health Staples

POLITICAL.

Historical Summary

Character of Land Tenures; System of Survey and Settlements.

Civil Divisions of British Territory

Details of the last Census, Tribes and Languages.

For information on the foregoing subjects, reference should be made to paragraphs 1 to 19 and 39 to 75 of the Report on the Administration of Burma for the year 1901-02.

The information under the red-letter heading 'Form of Administration' in the Report for 1901-02 is to some extent out-of-date. The section has therefore been revised and is repeated with necessary modifications in the following 20 paragraphs.

Form of Administration.

Lieutenant-Governor and Council.

1. In 1897 the Province, which had formerly been administered by a Chief Commissioner, was raised to a Lieutenant-Governorship. By section 3 of the Burma Laws Act, 1898, Burma was defined as the territories for the time being

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

administered by the Lieutenant-Governor of Burma. The Lieutenant-Governor also exercises political control over Karenni, a tract of country consisting of several petty States situated between Burma and Siam and lying outside of British India, which are in subordinate alliance with the British Government. A Legislative Council, for the purpose of making laws and regulations, was constituted in 1897. The number of members is nine, with the Lieutenant-Governor as President. The members are nominated by the Lieutenant-Governor and appointed by the Government. Five are ordinarily Government servants and four are selected from the non-official community.

Administrative Divisions—Shan States.

2. The primary administrative division of Burma is into Upper Burma, including the Shan States and the Chin Hills, and Lower Burma. The Shan States are administered by the Chiefs of the States subject to the supervision of the Superintendents in the case of the Northern and Southern Shan States, and to the supervision of the Commissioners of the adjoining divisions in the case of the other States. By section 11 of the Burma Laws Act, 1898, the civil, criminal and revenue administration of every Shan State is vested in the Chief of the State subject to the restrictions specified in the *sanad* or order of appointment granted to him. Under the same section the law to be administered in each State is the customary law of the State so far as it is in accordance with justice, equity and good conscience and not opposed to the spirit of the law in force in the rest of British India. Power to appoint officers to take part in the administration of any State and to regulate their powers and proceedings is vested in the Government.

Chin Hills.

3. In Burmese times the Chin Hills of Upper Burma were independent of external control. After the annexation they were gradually brought under administration, and, in September 1895, were formally declared to be part of the Province of Burma. They are administered by a Superintendent, and the law in force in them is declared by the Chin Hills Regulation, 1896. So far as persons other than Chins are concerned, the law is the same as the law in force in Upper Burma. So far as Chins are concerned, the criminal law is the same, with a few modifications, as the law of Upper Burma. The Chin Hills form a Sessions division and a district, and the Superintendent is appointed Sessions Judge. The revenue and general law of Burma does not apply to Chins, who are at a low stage of civilization. These matters are regulated for them by a few simple provisions in the Chin Hills Regulation, 1896, and the rules thereunder. A small portion of the Chin Hills called the Pakôkku Hill Tracts is outside the jurisdiction of the Superintendent and is controlled by the Commissioner of the Magwe Division.

Upper Burma.

4. Upper Burma, exclusive of the Shan States, is a scheduled district. The law in force there is closely assimilated to that in force in Lower Burma, the Acts which are in force in Upper Burma being specified in the first schedule to the Burma Laws Act. The rest of this section applies, except where the contrary is stated, to Upper Burma exclusive of the Shan States and the Chin Hills, and to Lower Burma.

Commissioners.

5. The chief executive officers under the Lieutenant-Governor are eight Commissioners of Divisions, four in Lower Burma and four in Upper Burma. Commissioners in Upper Burma and the Commissioner, Arakan Division, are *ex-officio* Sessions Judges in their several divisions and have civil powers under the Upper Burma Civil Courts Regulation, 1896, and the Lower Burma Courts Act, 1900, respectively. The other three Commissioners in Lower Burma have been relieved since 1905 of all Judicial work, Civil and Criminal. All Commissioners have powers as Revenue Officers under the Burma Land and Revenue Act, 1876, and the Upper Burma Land and Revenue Regulation, 1889. They are also responsible to the Lieutenant-Governor, each in his own division, for the working of every department of the public service except the Military Department and the branches of the Administration directly under the control of the Supreme Government. Certain of them also supervise certain Shan States adjoining their divisions,

and the Commissioner of the Magwe Division superintends the Pakôkku Chin Hills. CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

6. Under the Commissioners are 39 Deputy Commissioners including the Police Officers in charge of the Northern Arakan and Salween Districts who exercise the powers of a Deputy Commissioner. Deputy Commissioners perform the functions of District Magistrates, Collectors and Registrars except in Rangoon where there is both a District Magistrate and a Collector. In Upper Burma districts except Mandalay and in the less important districts of Lower Burma the Deputy Commissioner is also District Judge. Deputy Commissioners are responsible for many miscellaneous duties which fall to the principal District Officer as the representative of Government. Subordinate to the Deputy Commissioners are Assistant Commissioners, Extra Assistant Commissioners and Myoôks, who are invested with various magisterial, civil and revenue powers and hold charge of the townships, as the units of regular civil and revenue jurisdiction are called, and the subdivision of districts into which most of these townships are grouped. Among the salaried staff of officials the Township Officers are the ultimate representatives of Government who come into most direct contact with the people. Two appointments of Deputy Commissioner are opened to the Provincial Service. Other executive officers.

7. Finally, there are the headmen of village-tracts, assisted in Lower Burma by *sè-eingaungs* (rural policemen in charge of 10 houses), and in Upper Burma by elders variously designated. Similarly, in the towns there are headmen of wards and elders of blocks. The system of revenue collection through the agency of headmen is being steadily developed. In Lower Burma the land revenue and other district taxes were at one time collected by circle *thugyis* in charge of large groups of villages, but these circle appointments are now, with rare exceptions, being abolished as they fall vacant from death, retirement or other cause. The *myothugyis* in Upper Burma, who had in some instances been entrusted with this work, will similarly disappear in the course of a few years. The headmen are remunerated by commission on the amount of revenue which they collect. Village system.

8. The revenue administration of the Province is controlled by a Financial Commissioner assisted by two Secretaries. Subordinate Departments are in charge of a Commissioner of Settlements and Land Records, a Director of Agriculture and a Superintendent of the Civil Veterinary Department. In each of these departments there is a subordinate departmental staff. Revenue Administration.

9. The administration of Civil and Criminal Justice is under the control of the Chief Court, Lower Burma, with four Judges, and of the Judicial Commissioner, Upper Burma. Purely Judicial Officers include six Divisional and eight District Judges, and there are also separate Provincial and Subordinate Judicial Services. Divisional Judges are also Sessions Judges, while District Judges confine themselves mainly to the exercise of civil jurisdiction. As regards the appointment of District Judges, the scheme for the separation of executive and judicial functions extends to the more important districts of Lower Burma and to the Mandalay District. It does not extend to Kyaukpyu, Sandoway, Salween, Tavoy, Mergui or Thayetmyo, where the Deputy Commissioner continues to perform *ex-officio* the duties of District Judge, to Rangoon, where the Chief Court takes the place of the District Court, or to the Arakan Hill Tracts, which are under a special law. In the remaining 13 districts of Lower Burma the Deputy Commissioner has no concern with civil justice. In four cases two, and in one case three, districts are grouped under one District Judge, who spends part of his time in each. Besides their civil jurisdiction, District Judges are invested with powers under sections 30 and 34 of the Criminal Procedure Code, 1898, in order that they may partially relieve Deputy Commissioners of the burden of criminal work, and they are also empowered to hear criminal appeals from 2nd and 3rd class Magistrates. Two of the appointments of District Judge are open to members of the Provincial Service. Similarly, by the appointment of Divisional Judges the Commissioners of the Pegu; Judicial Administration.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY

Tenasserim and Irrawaddy Divisions are relieved of all judicial work, criminal and civil, and the Commissioner of the Magwe Division receives relief in respect of the Thayetmyo District; but in the Arakan Division the Commissioner continues to be Divisional and Sessions Judge for his division Though the Rangoon Town District is in the Hanthawaddy Sessions Division, the sessions cases and criminal regular appeals belonging to it are tried by the Chief Court, and it is not in the Hanthawaddy civil division. The constitution of the Provincial and Subordinate Judicial services operates in the same way to relieve Subdivisional Officers and Township Officers in the more important charges in Lower Burma and to a less extent in Upper Burma of Civil Judicial work and in some cases also of criminal work. The Chief Court is the highest Civil Court of appeal and the highest Court of Criminal appeal and revision for Lower Burma. It is also the High Court for the whole of Burma (including the Shan States) in reference to proceedings against European British subjects. It is the principal Civil and Criminal Court of original jurisdiction for Rangoon Town, and hears appeals from all sentences of Courts or Magistrates exercising jurisdiction in Rangoon Town. It has within Rangoon Town the powers of a Court for the relief of insolvent debtors under the Indian Insolvency Act, 1848. In criminal and civil matters the Judicial Commissioner, Upper Burma, exercises, in Upper Burma, the powers of a High Court for appeal, reference and revision, except in respect of criminal cases in which European British subjects are accused. All village headmen have limited magisterial powers and a considerable number exercise the powers of Civil Courts.

Public Works.

10. Besides the General, Revenue and Judicial Services mentioned in the preceding paragraphs, the several auxiliary branches of the Administration may be briefly noticed. The Public Works Department is under the joint control of two Chief Engineers who are also Secretaries to Government in the Public Works Department for their respective branches of work. There are eight Superintending Engineers (including one for Irrigation, a Superintending Engineer Architect and a Sanitary Engineer), 76 Executive and Assistant Engineers, 25 Temporary Engineers and five Honorary Assistant Engineers.

Police.

11. The superior staff of the Police Department consists of an Inspector-General of Police, four Deputy Inspectors-General, one of whom holds the appointment of Commissioner of Police, Rangoon, a Superintendent of Police Supplies, 43 District Superintendents and 42 Assistant Superintendents. The Military Police are officered by two Adjutants, 12 Commandants, four Assistant Adjutants and 37 Assistant Commandants.

Medical.

12. The control of the Medical Department is vested in a Colonel of the Indian Medical Service who is Inspector-General of Civil Hospitals. There are 41 Civil Surgeoncies, of which 19 are reserved for Commissioned Officers of the Indian Medical Service. There are also a Sanitary Commissioner and a Deputy Sanitary Commissioner whose duties include the superintendence of vaccination and an Inspector-General of Prisons and three whole-time Jail Superintendents, all of whom belong to the Indian Medical Service. The supervision of sanitation and the charge of prisons other than the three whole-time jails is undertaken by Civil Surgeons and other Medical Officers in addition to their medical duties.

Forests.

13. The Forest Department is administered by a Chief Conservator, four Conservators and 56 Deputy Conservators and Assistant Conservators who are remunerated on a time scale Besides these officers who belong to the Imperial Service, there is a Provincial Forest Service and a Subordinate Forest Service.

Excise.

14. The Excise Department is under the control of the Financial Commissioner as Chief Revenue Authority. There is an Excise Commissioner drawn from the ranks of Deputy Commissioners, a Chief Superintendent, 29 Superintendents and a Departmental staff.

15. The Port Officer, Rangoon, is styled Principal Port Officer, Burma, and is the Head of the Marine Department. The Principal Port Officer, the Port Officers of Moulmein, Akyab and Bassein, and the Marine Transport Officer, Mandalay, are recruited from the Royal Indian Marine. There are two Assistant Port Officers at Rangoon, one of whom belongs to the Royal Indian Marine and there is a staff of Engineers at Rangoon and Mandalay. River Conservancy is in charge of an Assistant Conservator. At minor ports the Deputy Commissioner is Port Officer. Ports.

16. The Financial Commissioner is *ex-officio* the Chief Customs authority. There is a Chief Collector of Customs at Rangoon. At other ports the Port Officer or the Deputy Commissioner, and at Victoria Point the Subdivisional Officer, is *ex-officio* Collector. There is an Assistant Collector of the Imperial Service at Rangoon and one each at Rangoon, Moulmein and Akyab belonging to the Provincial Service. Customs.

17. At the head of the Education Department is the Director of Public Instruction with an Assistant Director. There are also six Inspectors of Schools, ordinarily recruited from the Imperial Service, and six Assistant Inspectors belonging to the Provincial Service. The staff of the Rangoon College includes a Principal and three Professors drawn from the Imperial Service to which the Principals of the Government Schools at Rangoon and Moulmein also belong. The Educational Syndicate is a body outside of the Education Department, which has for its object the promotion of education throughout the Province. It receives a grant from Government. Education.

18. There is a Bishop of Rangoon, five Senior Chaplains, five Junior Chaplains and one Probationary Chaplain. One of the Chaplains acts as Archdeacon and Bishop's Commissary. Eight Clergymen not on the Ecclesiastical Establishment receive allowances from Government. Ecclesiastical.

19. There are 29 Municipal towns in Lower Burma and 15 in Upper Burma. Fifteen smaller towns, seven in Lower Burma, five in Upper Burma and three in the Shan States, have been constituted Notified Areas or Minor Municipalities under the Burma Municipal Act, 1898. The town of Shwebaung has a Town Committee but has not been notified under the Act. In nine of the Lower Burma Municipalities and in Mandalay some of the members of the Committee are elected. In the remainder all the members are appointed by the Lieutenant-Governor or the Commissioner of the division. Local Self-Government.

20. The Accounts Department is controlled by an Accountant-General, assisted by a Deputy Accountant-General and three Assistant Accountants-General. The Telegraph Department is administered by three Superintendents, assisted by six Assistant Superintendents. The Post Office of India is under the management of a Postmaster-General with thirteen Superintendents. Burma Surveys are supervised by a Superintendent-in-charge and four Assistant Superintendents. Miscellaneous.

Changes in the Administration.

21. The Hon'ble Sir Herbert Thirkell White, K.C.I.E., was Lieutenant-Governor of Burma throughout the year. The Lieutenant-Governor.

22. With effect from the 16th September 1907, the headquarters of the Minbu Division were removed from Minbu to Magwe and the division was renamed the Magwe Division. The Milaunggôn Island, area 778 acres, was transferred from the Shwegyin Township, Toungoo District, to the Nyaunglebin Township, Pegu District, as owing to a change of course in the Sittang river the island now belongs geographically to the latter district. No new district, subdivision or township was created and no administrative area was abolished. Administrative territorial units.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

Additions to and changes in the Administrative Staff.

23. During the year of report various reforms of administration were carried into effect involving the creation of new posts and revision of the terms of existing appointments. With unimportant exceptions the re-organization of all grades of the Police Force was completed. The most important changes introduced during the year were *a*) the constitution of the new rank of Deputy Superintendent; (*b* the introduction of the final grading of Inspectors; and (*c*) the creation of separate clerical establishments in Police Offices. The net result of the re-organization was the addition to the force of 119 Sub-Inspectors, 1,035 Head Constables and 202 Constables. Separate Provincial and Subordinate Judicial Services were created in place of the Township Judicial Service sanctioned in 1905. Civil Divisions in Lower Burma were re-arranged. A new division was constituted involving the appointment of an Additional Divisional Judge of the first grade and the pay of that grade was raised from Rs. 2,500 to Rs. 2,750. The appointments of Superintendents of Commissioners' Offices were included in the cadre of the Provincial Civil Service. In the Forest Department the clerical establishment was re-organized, but owing to want of funds the orders were not carried into effect during the year.

Relations with Tributary States and Frontier Affairs.

(*i*) *Shan and Karenni States.*

General.

24. No change was made in the system of administration in the Shan States during the year under review. This large area, though forming an integral part of Burma and of India, is administered by Native Chiefs subject to the guidance of the Superintendents and Assistant Superintendents who interfere as litttle as possible with the internal economy of the several States. When the large extent of these States is taken into consideration, the number of British Officers and the force found necessary for the preservation of order must be regarded as extremely small. Two Battalions of Military Police, with headquarters at Taunggyi and Lashio respectively, and a very small establishment of Civil Police are sufficient to maintain order. So far, this interesting experiment in administration, which has been on trial for twenty years, has given good results. The record of the past year, embodied in the Superintendents' Reports, shows that progress continues to be made in the improvement of the administration of several States, and that the condition of the people is satisfactory. Much depends on the personal influence of the Superintendents and their Assistants with the Chiefs.

Events of the year.

25. The principal event of the year was the visit of His Excellency the Viceroy to Lashio where the Chiefs of the Northern States were received in Durbar, and had also the honour of separate interviews with His Excellency. The principal Chiefs of the other Shan and Karenni States were present at His Excellency's Durbar in Mandalay. The most important incidents of the year in Karenni were the death of Sawlawi, the loyal and capable Chief of Kantarawadi, and of Hkun U, the Myosa of Kyèbogyi. The succession was arranged without difficulty in each case and the new Chiefs were duly installed.

Internal affairs.

26. The peace of the States was undisturbed throughout the year, and the relations between the several Chiefs were satisfactory and on the whole cordial. Disastrous fires occurred at Yawnghwe and Mawkmai, that at the former place being particularly destructive. The statistics given in the Reports, though probably they are incomplete, may be presumed to include crimes of a serious character. They indicate that serious crime does not tend to increase and they may be regarded as satisfactory. In several States regular police are employed by the Chiefs and are said to be useful. There has no doubt been much improvement in the administration of the more important States, as the Chiefs become more enlightened and more accustomed to regular methods of Government,

The conspicuous success of the Chief of Yawnghwe in the zealous management of his State was recognised by his appointment to the Order of the Indian Empire. In Kēngtūng, also, improvement was effected and the Chief's efforts received a mark of the appreciation of the Supreme Government. The enlightened administration of the Chief of Laihka deserves special mention. The most gratifying success has attended the efforts made to place the finances and administration of the State of Tawngpeng on a sound footing. The Chief has accepted advice and guidance and has taken an interest in the reforms which have been effected. It is satisfactory also to record that the Chief of South Hsenwi has shewn zeal and discretion in improving his administration. The affairs of the State of Möng Mit were satisfactorily managed by the young *Sawbwa* under the sympathetic guidance of the Deputy Commissioner of the Ruby Mines District.

Public Works.

27. Much activity was displayed in the prosecution of public works. In some of the wealthier Northern States the funds allotted were more than could usefully be expended with the establishment available, and considerable accumulations have been placed in reserve. Endeavour is being made to provide further professional assistance to enable these funds to be spent on public works to the best advantage. In Yawnghwe, Kēngtūng, Kēnghkam, Möngpan, Laihka and other States works of utility were carried out. In the improvement and maintenance of communications special activity was shewn, and even the smaller States with scanty resources did their best in this respect. The Public Works Department expended a substantial sum on the maintenance of roads and on the construction of buildings at various posts. As far as possible, the main road from Meiktila to Taunggyi will be put in order, but whether funds can be provided for making it suitable for motor cars is doubtful.

New projects

28. The general condition of the people appears to be satisfactory, and every effort is made by the Superintendents and their Assistants to prevent petty exactions and annoyance on the part of subordinate State officials. Trade in both the Northern and Southern States shewed a steady and satisfactory increase. The great and urgent need of the Southern States is railway connection with the plains of Burma. Final proposals for the construction of a Railway from Thazi to the neighbourhood of Taunggyi have at last been formulated and submitted, and it is hoped that the inception of this important project is now within reach. In the Northern States, the Burma Mines Company continued their railway towards the Bawdwin Mines, and active work at the mines will, it is expected, soon be undertaken. In the Southern States and in Karenni extensive prospecting operations are in contemplation. The development of the mining industry in the Shan States and the consequent influx of large numbers of foreign labourers and others will introduce a new element into the States and will render the administration more complex and difficult. Already it has been found necessary to make special arrangements for policing the mining and railway camps in the Northern States.

Forest Administration.

29. Another matter which engages the attention of Government and is one of much difficulty is the question of Forest Administration. Both for climatic and for sylvicultural reasons, in both of which the interests of the people are closely concerned, it is necessary to prevent the denudation of the country of forest growth and to protect the valuable timber-producing areas. At the same time, before extensive reserves can be formed, the establishment of the Forest Department must be strengthened, and the immediate convenience of Chiefs and people must be considered. In the settlement of areas proposed for reservation, care has been taken to employ as Forest Settlement Officers officers of experience, fully in touch with the people. The total area at present declared to be reserved forests in the whole of the Shan States, including the State of Möng Mit, aggregates 1,264 square miles, of which 270 square miles are in the Southern Shan States.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY. Education.

30. The indications of increasing interest in education in many of the States are specially satisfactory. The Superintendents have been requested to consider whether Chiefs of the more important States might not be induced to do more to encourage the establishment of vernacular schools. The school for the sons of Chiefs at Taunggyi continued to be admirably administered and made extremely good progress. The advance made by the school for the sons of local officials at Lashio is also noted with satisfaction.

Medical and Veterinary Departments.

31. The provision of medical aid and veterinary assistance does not call for special comment. Vaccination received due attention. Although the number of vaccinations registered was less than in the previous year, this is in part at least attributable to improved registration. On the whole, the success which has attended the efforts to extend vaccination and the readiness with which it has been accepted by the people are gratifying. Eight Veterinary Assistants are employed and the training of Shans to be Veterinary Assistants has been undertaken. In view of the great mortality from cattle disease which occurs with consistent regularity in the Shan States, an increase in the number of Veterinary Assistants is most desirable.

(ii) The Chin Hills.

Frontier Tribes.

32. The feud between the Shandus and Kons in the unadministered territory between the Chin Hills and Northern Arakan was satisfactorily settled during the year. The quarrel had its origin in the massacre, in December 1906, of the Sabong Chief and 26 of his followers at the Kon village of Bahè. A joint enquiry was held by the Deputy Commissioner of Northern Arakan and the Superintendent of the Chin Hills, who met for this purpose at the village of Laki in unadministered territory, and final orders in the matter were then passed by the Lieutenant-Governor and have been accepted by both parties. Bahè, the Kon Chief, was deported to Akyab, where he is being kept in confinement, compensation, amounting to Rs. 3,000 and payable by the Kons, being at the same time granted to the Shandus. With the permission of Government, advantage was taken by the officers holding the enquiry to examine on the spot, in consultation with the Superintendent of the Lushai Hills, a proposal to bring under regular control the unadministered tract adjoining the Hill Tracts of Arakan on the north, and to define the southern boundary of the Lushai Hills. A joint report was submitted by the three officers. A minor raid was committed by certain persons from Tingshi in unadministered territory on the village of Lunka in the Chin Hills, and the members of a family were carried off from the latter village. The release of these persons was effected without difficulty, and a small fine will be recovered from the village of Tingshi as a punishment for the raid. With this one exception, the relations between the administered and unadministered tribes were everywhere satisfactory. The Chiefs of the tribes inhabiting the territory which borders on the Pakôkku Hill Tracts maintained cordial relations with the Superintendent, and are said to be desirous of being brought under regular administration. In the tract situated on the west of the Upper Chindwin District the tribes remained in the quiescent attitude which they have observed for a number of years.

Chin Hills proper.

33. The conduct of the tribes in the Chin Hills was good, and their relations with the Burmans of the plains and the tribes of the Lushai Hills and Manipur continued to be satisfactory. Crime in the Chin Hills is light and decreasing, and the success which has attended the efforts to withdraw unlicensed guns from the northern tribes is a guarantee of continued peace. It is satisfactory to note that the prosperity of the hills is advancing. Wheat, barley, maize and irrigated rice are now successfully cultivated, while the trade with the plains shows a steady improvement. Increased recourse was had to medical aid, and the hospitals and dispensaries provided by Government and by Missionary enterprize seem to be much appreciated. An important administrative measure, which is now being undertaken, is the reservation of large tracts of forests on the main ranges of hills.

34. The year was not marked by any events of political importance in the Pakôkku Hill Tracts. The condition of the people is prosperous, and an enhanced rate of tribute has been imposed on certain villages situated in the valley of the Môn. The absence of serious crime and the continued efficiency and good conduct of the Chin police force are satisfactory features of the year's administration. CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY. Pakôkku Hill Tracts.

35. The peace of the Arakan Hill Tracts was not disturbed throughout the year. The settlement of the Kon-Shandu dispute has led to a recovery of trade. Education has progressed, and there is little or no crime in the district. The annual Durbar in the Chin tract which lies to the north-east of the Minbya Subdivision was held as usual by the Deputy Commissioner of the Akyab District. The state of the tract was found to be satisfactory. The Chin Hills in the Kyaukpyu District were not visited during the year. Arakan Hill Tracts.

(*iii*) *The Kachin Hills.*

36. The year under review was one of comparative quiet on the north-eastern frontier of the Province. On the Chinese portion of the frontier there was very little disturbance. The disputes in the States of Santa and Mengwan had subsided before the commencement of the open season, and relations with the Chinese States were satisfactory. The only irruption of any importance from beyond this part of the frontier was a raid committed on the village of Wajao in March by an armed gang from Santa, who carried off four buffaloes as compensation for a seizure of opium alleged to have been made from them five years ago. Negotiations with the Chinese authorities for the return of the stolen property and the punishment of the gang are still pending. The customary frontier meeting with Chinese officials was held in January, and a settlement was arrived at in a considerable number of outstanding cases. Chinese Frontier.

37. On the northern portion of the Myitkyina District which borders on unadministered territory, the Sana Kachins, who attacked the Military Police outpost at Auchè in March 1907, in revenge for the death of Shingrai La at the hands of a police officer in the course of an opium-smuggling raid, at one time showed signs of desiring to make their peace, but a brutal outrage committed by certain members of this tribe in May 1908 showed that they had decided to resume their hostile attitude. A Gurkha and his wife, child, and servant were murdered in cold blood, not because they had themselves given any offence to the Kachins, but because being British subjects their deaths were regarded as part-payment of the debt due for the death of Shingrai La. The headman of the village of Atankawng, also in unadministered territory, who was concerned in the Tingaw raid of 1898 and who has since remained hostile, instigated the kidnapping of three persons from the administered village of Graugra, who were engaged in cultivation on the right bank of the 'Nmaikha. In this case the headman at first adopted a defiant attitude, but it was afterwards found possible to arrest his brother while making an incautious visit to the Jade Mines, and the headman then agreed to the release of all the captives as a condition of his brother being set at liberty. Two other infractions of the administrative border occurred, not on account of feuds, but arising out of the practice of slavery which exists in the unadministered tracts. A slight alteration was made during the year in the position of the administrative boundary on the north of the Myitkyina District. The boundary was advanced so as to include a small area to the north and west of the confluence of the 'Nmaikha and Malikha rivers. A Military Police post has been established at Weshi in this newly included area. Unadministered Territory.

38. The conduct of the internal administration of the Kachin Hills during the year was satisfactory. The tribute was collected without difficulty and ordinary crime was very light. There was also but little civil litigation. The officers engaged in the administration of the hills made extensive tours in the interior, and much useful work of a routine nature was accomplished. The season Internal Administration.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

at the Jade Mines was not entirely successful owing to the loss of the pumping apparatus by an accident. The administration of the Jade Mines tract also came under consideration during the year. It was found that the headman, La Saing, owing to his dissipated habits, was incapable, and a relation named Ningja La was accordingly appointed to carry on the administration until La Saing should die or his son Sinwa Nawng grow up. La Saing has since died and arrangements for the education of the minor headman are being made. Attention has been given to the question of the reservation of forests in the Kachin Hills, which are in danger of complete destruction owing to the increase of the Kachin population and their wasteful system of *taungya* cultivation. A representation has been submitted by the Commissioner on the subject of the supply of liquor by Kachins to Gurkha sepoys of the Military Police and is being considered.

Condition of the People.

39. The rainfall in Lower Burma was generally sufficient and timely and agricultural conditions were on the whole favourable. In the dry zone of Upper Burma, on the other hand, except in Magwe, the season was an exceptionally poor one and there was scarcity throughout the Meiktila District and in parts of Lower Chindwin, Pakôkku, Myingyan and Yamèthin. The rice crop in Lower Burma was above the normal, while short crops prevailed in Upper Burma. Very high prices ruled both in the case of paddy and of other crops. Cattle disease was less prevalent than in the previous year. The remarkable expansion of trade continued and some activity was shown in connection with the development of the mineral resources of the country. Plague showed no signs of abatement, but outbreaks of small-pox were less frequent and less severe and the general health as judged by the number of deaths recorded showed some improvement.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REFERENCES—

Land Revenue Administration Report of Burma for the year ended the 30th June 1908.
Land Records Administration Report of Burma for the year ending the 30th June 1908.
Twenty-second issue of the Agricultural Statistics of India for the years 1903-04 to 1907-08, Volume I, Tables V, V-A and B and VI, VI-A and B.

Realization of the Revenue.

Demand, recoveries, remissions and outstandings.

40. The demand of Ordinary Land Revenue assessed during the year rose by 5·40 lakhs. In 1903-04 the demand was 218 lakhs: it now stands at 250. The increase now reported is therefore only a little below the average increase for the quinquennium. In the last ten years the increase has been 125 lakhs or an average increase of 12·5 lakhs per annum. It is not to be expected that the rate of increase prevailing in the years up to 1905-06 could be maintained permanently; but it is equally erroneous to suppose that the limit of expansion for Burma has been reached or is even within sight. Land revenue was partially substituted for *thathameda* in the Shwebo District, but while the consequent decrease of *thathameda* was certain, the enhancement of land revenue was not proportionate owing to the unfavourable season which was also responsible for large non-assessments of ordinary land revenue and *thathameda* and large remissions of *thathameda* in other districts of the dry zone. Remissions of revenue assessed in the year amounted to less than half those of the previous year and remissions of revenue assessed in earlier years were Rs. 23,442 less. The drop is more than accounted for by Hanthawaddy District alone, where remissions in 1906-07 were exceptional. Altogether throughout Lower Burma out of a total of Rs. 1,24,431 of current demand remitted, Rs. 51,537 were remitted as irrecoverable, and Rs. 25,433 as erroneously assessed, while the remainder, Rs. 47,461, was due to other causes of which floods were the most important. Figures for Upper Burma are not instructive since exemption of unproductive fields is the more important form of relief to the cultivator, but drought took the place of floods as the chief cause for remission. The total remissions for the Province amounted to Rs. 1,88,904, which is a nearer approach to the normal figure than has been recorded since 1903-04. The adoption of non-assessment on block areas where failure has been general has reduced the figures in comparison with years prior to 1905-06. Out of Rs. 1,52,954 of the previous year's assessments remaining for collection at the beginning of July 1907, Rs. 1,05,117 were collected and Rs. 45,759 were remitted. Rupees 2,47,11,127 out of the demand of Rs. 2,49,82,671 were collected in the year and Rs. 96,899 remained outstanding at the close of the year. The corresponding figures for collection against current demand in 1906-07 were Rs. 2,39,06,953 out of Rs. 2,44,42,036 with an outstanding of Rs. 1,39,589. While the demand was Rs. 5,40,575 better than in the previous year, collections were Rs. 8,04,174 better. This latter improvement is due to decrease of remissions rather than to earlier collection. Collections reached 99 per cent. of the current demand, a better result than has been obtained for many years.

Coercive processes.

41. Notices of demand again decreased by nearly 6,000; warrants of arrest by over 2,500; warrants of attachment of property by 3,200. The number of persons arrested decreased by 800 and persons committed to jail numbered only 25 in the whole Province against 65 in the previous year. Sales of moveable property took place in 15 more cases and of immoveable property in over 600 fewer cases. Out of $8\frac{3}{4}$ lakhs for recovery of which process issued, over $6\frac{1}{2}$ lakhs were recovered. The amount not so recovered was about the same as in the previous year. The reports show that capitation-tax and *thathameda* are harder

CHAP. II.—ADMINISTRATION OF THE LAND.

to collect without process than land revenue and that land revenue is harder to collect where cultivation is new or intermittent. Revenue is generally paid without coercion where the population is stable. Most of the processes are issued, not on account of contumacy, but because the assessees are not readily found. Contumacy is, however, widely attributed to Indian and other immigrants, as well in Upper Burma and the remoter districts as in Lower Burma and the thickly populated tracts.

Surveys.

Demarcation preliminary to Survey.

42. In advance of cadastral survey by No. 7 Party of the Survey of India Department, demarcation was undertaken in the Pegu and Yamèthin Districts. In the Pegu District two Demarcation officers were employed for three months in demarcating the tract known as the Sittang accretions. In the Yamèthin District an area of 116 square miles, chiefly in the Taungnyo valley of the Pyinmana Township, and partly on the west of Tatkôn Railway Station, was demarcated. The preliminary demarcation for the year's survey by special agency in the Akyab District comprised an area of 51 square miles in the Kyauktaw and Myohaung Townships. An area of 5 square miles in the An and the Myebôn Townships of the Kyaukpyu District was demarcated in December. Demarcation in advance of survey by a special party was continued in Amherst, and an area of 240 square miles, chiefly in the Kyaikmaraw and Kawkareik Townships was demarcated. An area of 112 square miles was demarcated in advance of survey by a special party in the Pa-an Subdivision of the Thatôn District. The Inspector of the Special Survey, with the aid of the local *thugyis* and cultivators, demarcated in advance of the survey by local agency, without additional cost, an area of 17 square miles situated in the Sagu, Legaing and Salin Townships of the Minbu District. In the unsurveyed tract of the Nyaunglebin Township of the Pegu District some 5 square miles were demarcated by the local Inspectors and Surveyors.

Surveys by Imperial Agency.

43. Number 7 Party of the Survey of India completed the cadastral survey of 637 square miles, traversed in the previous year, in the Allanmyo and Minhla Townships of the Thayetmyo District. The party also finished, exclusive of 22 square miles of river blocks, the traverse and detail survey of 207 square miles, consisting of the accretions of the Sittang river, in the Thanatpin Township of the Pegu District; the traverse and detail survey of 116 square miles, chiefly in the Taungnyo valley of the Pyinmana Township of the Yamèthin District, and the cadastral survey of 12 square miles in the Kalateik-Thakan tract of the Bogale Township of the Pyapôn District. The year's programme completes the work in Burma of No. 7 Survey Party, which is now to be disbanded, and all original cadastral surveys will be conducted by local agency in future.

Surveys by Provincial Agency:—(i) Revision Surveys.

44. The mapping and area work of the re-surveys done by special staffs during the year 1906-07 in the Pegu, Pyapôn, Amherst, Thatôn and Hanthawaddy Districts were completed in the recess season. Revision surveys by special agency were executed during the year of report in the districts of Amherst, Thatôn Hanthawaddy, Meiktila, Mandalay, Myingyan, Minbu and Shwebo. The operations in the first two districts were conducted by a special party in charge of a Special Superintendent, Maung Pe Maung, and in the others by the local Superintendents of Land Records. Surveys by a special staff under Maung Pe Maung were started in the Thatôn and Paung Townships of the Thatôn District, in the west of the Kyaikmaraw Township of the Amherst District, and in the Pa-an Township. Only portions of the surveys in the Hlaingbwè Township of the Thatôn District and in the Kawkareik Township of the Amherst District could be completed by the end of the field season, while the survey in the Amherst and Ye Townships had to be left over. The re-surveys by special agency in Hanthawaddy were confined to the Kungyangôn Subdivision, and the Insein Township of the Insein Subdivision. The reasons for the revision of the survey are the enormous expansion of cultivation since settlement, and the

numerous changes in the field boundaries from the time of the original survey when much of the cultivation was still new. On the arrival of a revision settlement party in the Meiktila District, extensions of cultivation necessitated the re-survey by a special staff of large areas. A revision of survey in the Mandalay Canal Tract of the Mandalay District was sanctioned at an estimated cost of Rs. 22,000. Revisions were found to be necessary owing to the expansion of cultivation and the great topographical changes brought about by the opening of the canal. Revision surveys in the Myingyan District were undertaken chiefly in the neighbourhood of the Kama tank. No traversing was done as most of the theodolite stations were found well preserved. In the Minbu District a small staff revised the survey of 7,222 acres of cultivation with which the local surveyors were unable to deal. Revision surveys were carried on in the Shwebo District by a temporary staff employed for two months in the survey of areas brought under cultivation by extensions of the Shwebo Canal Irrigation system. A portion of the survey was also done by the regular staff, but the bulk of the work was done by the special staff. The annual re-survey of impermanent island cultivation, for assessment purposes, was, as usual, done by special surveyors in the districts of Mandalay, Sagaing, Lower Chindwin and Myingyan.

Surveys by Provincial Agency:—(ii) Extension Surveys.

45. The recess work of the field surveys executed in 1906-07 by local agency in the districts of Akyab, Kyaukpyu and Tharrawaddy was completed and the maps were printed. In the year of report extension surveys by special parties under the supervision of the local Superintendents of Land Records were continued in the three districts abovenamed. Similar surveys were also conducted in Minbu and in parts of Amherst and Thatôn. The surveys were confined as much as possible to cultivation, hills were excluded, and as little jungle and included waste taken in as was consistent with absolute requirements. The proportion of cultivation to waste for the whole surveyed area of all six districts is as 1 : 1·36; but in Amherst the area of waste is about double and in Kyaukpyu just over one-half of the cultivation. The year of report was the third year of the four-year programme for the survey of cultivated blocks in the unsettled tracts of the Akyab District. The operations were confined to the north-west of the district in the Kyauktaw and Myohaung Townships, though a small portion of the Minbya Township was also taken up in the year. For a second season the cadastral survey of cultivated blocks bordering on the older surveyed tracts in the Kyaukpyu District was carried out in the An and Myebôn Townships. The two-years' programme of original cadastral survey in the Tharrawaddy District which was begun in the previous year was brought to a close. The tracts for survey were situated at the foot of the hills along the left bank of the Myitmaka river, bordering in both cases on old surveys. In the Minbu District some surveys of cultivation, outside the settled tract, were undertaken in the year. The demarcation and survey of important railway and other towns were again continued during the year. The work was executed by special staffs under the control of the local Superintendents of Land Records. The surveys, all on the scale of 64 inches to the mile, have generally been of a professional standard, and are for the most part geographically fixed. Some progress was made with the preparation of town lands rolls, but at several centres it was slow. Delays occurred, chiefly because the Tenure or Revenue officers had also to attend to their ordinary duties. There were altogether 13 Demarcation officers at work in 31 towns. Surveys were conducted in 32 towns altogether, belonging to eleven districts. The demarcation and survey of fisheries in the Pyapôn District remaining over from the programme of the previous year was all but completed in the year. A Demarcation officer was employed to demarcate 46 fisheries situated in the Pyapôn and Bogale Townships of the Pyapôn District, and also one fishery in the Ma-ubin Township of the Ma-ubin District. In Katha four of the local surveyors were taken off their regular work for the space of a month to survey fisheries. They surveyed six fisheries having an area of 4,402 acres. There are said to be altogether 185 fisheries in the district for demarcation and survey. For this work a special staff is needed. The survey

CHAP. II.—ADMINISTRATION OF THE LAND.

of *pottas* is confined to Lower Burma, and during the year operations by special agency were conducted in 12 districts. The total number of cases dealt with was 5,162, the area surveyed comprised 49,720 acres, and the cost of the operations amounted to Rs. 25,369.

Settlements.

Changes of procedure.

46. In Lower Burma the practice has hitherto been to take up and complete the settlement of a district in one-year blocks. Under this system the settlement operations in each block are limited to one field season. The results of the field work are dealt with in the ensuing recess, and the report is then submitted at once. The practice in Upper Burma has been different. There, a district has not been divided into one-year blocks, but is ordinarily taken up as a whole. Crop measurements are repeated year after year, and the report is not drawn up till statistics are available for two or more years. The latter system, under which a series of crop measurements extending over several years is obtained, was necessitated by the precarious nature of the crops in the drier districts of Upper Burma. Although the ample and ordinarily well-distributed rainfall of Lower Burma practically ensures a fair crop to the cultivator, there is room for considerable fluctuation of outturn from year to year, and it is thus not always easy to decide normal outturns from the results of one year's crop cuttings. Again, with only one season to work in, the collection of other statistics has to be hurried. The Settlement Officer does not get the opportunity of comparing the statistics over wide areas before he has to prepare his report. The district block system is of course more expensive than the method of working in one-year blocks. The same ground has to be gone over two or three times and, the area being larger, more supervision is required. A programme for applying the Upper Burma system to Lower Burma has been prepared subject to the modification that some districts will be divided into two blocks each occupying two or more years. The recognized term of settlements in Lower Burma has hitherto been fifteen years and in Upper Burma ten years. It is proposed to lengthen these terms in certain cases. Besides giving more time for the actual operations of settlement, it has also been decided to allow more time for the consideration of the Settlement Report and for the notification of sanctioned rates.

Operations of the year.

47. During the year five settlement parties were at work. Settlement operations were in progress in four Lower Burma and in four Upper Burma districts. The average cost of settlement operations in these eight districts works out to 6 annas per cultivated acre. New rates were notified in six districts during 1907-08. The new settlements enhanced the expiring demand of Rs. 26,15,161 by Rs. 3,51,685, an increase of 13·45 per cent.

Settlements in progress.

48. Settlement Party No. 1 was occupied during the recess on the block of Amherst District taken up in the preceding field season. The Conference was held in January 1908, and the rates fixed by the Lieutenant-Governor were notified in the following June, resulting in an enhancement of 21 per cent. on the current demand. In November 1907 the Party commenced field work in the Thatôn District. No. 2 Settlement Party was engaged during the recess on a block of the Pyapôn District. The usual Conference was held in December 1907, and the new rates fixed by the Lieutenant-Governor were notified in April 1908. Under the new settlement there is an increased demand of nearly 34 per cent., a moderate enhancement in view of the lowness of the expiring assessment, and the prosperous condition of the persons interested in the land. After completing Pyapôn, No. 2 Party moved to Rangoon and commenced the settlement of Hanthawaddy. No. 3 Party continued the settlement of the Pakôkku District commenced in October 1905. Owing to drought, the crops of 1907-08 were a failure, and crop measurements were not so numerous as usual. Holding marking and soil classification made good progress. The settlement of the Lower Chindwin District by No. 4 Party commenced in November 1905 and was continued

during the year of report. Soil classification was practically completed and a fair number of crop measurements were obtained. Number 5 Party completed the settlement of the Minbu District. The report was reviewed by the Conference officers just at the close of the year. The rates recommended by the Conference officers increase the current demand by 27 per cent. Most of this large enhancement comes from areas commanded by Government works in which there have been great improvements since the original settlement. In November 1907 the party moved to Meiktila to take up revision settlement in that district.

Orders on completed Settlements.

49. Orders were passed on the Sandoway Summary Settlement Report in July 1907. The new rates were notified in August 1907 and take effect from July 1908. The settlement produces an increase over the current demand of nearly 19 per cent. The new settlement of the Shwebo District (excluding the area commanded by the Shwebo Canal) came into force on the 1st August 1907. The settlement gives an increase of nearly 21 per cent. over the expiring demand. The new rates for the Katha District, notified in October 1907, take effect from the 1st April 1908. The demand under the new settlement is about 23 per cent. less than the expiring demand, a result due to a reduction of one and a half lakhs in *thathameda*. Orders were passed during the year on the settlement of the Mandalay Canal tract where the new rates take effect from the 1st April 1908. In this area the new settlement produces an increase of 5·30 per cent. over the expiring demand.

Land Records.

Area under Supplementary Survey.

50. The total area under supplementary survey during the year was 47,541 square miles, showing an increase over 1906-07 of 71 square miles. Extension surveys accounted for increases in the following districts:—Akyab, 20 square miles, Kyaukpyu 20 square miles, Tharrawaddy 44 square miles, and Pegu 18 square miles, of which, however, one square mile is due to the transfer of one *kwin* from Toungoo. The transfer of an island from Pakôkku which is not yet under supplementary survey accounts for an increase of one square mile in Myingyan. In the Lower Chindwin there was a decrease of 23 square miles, due to revised figures only, and not to any change in the area under supplementary survey, and in Thatôn of eight square miles due to erosion. The total assessment for the year amounted to Rs. 2,62,20,575 compared with Rs. 2,54,81,253 in the previous year, an increase of Rs. 7,39,322 despite decreases of Rs. 1,81,824 in Sagaing, Rs. 1,48,631 in Meiktila, Rs. 1,23,684 in Myingyan, and smaller reductions aggregating Rs. 2,26,013 in other Upper Burma districts owing chiefly to the unfavourable character of the season. In the following districts there were increases of revenue due to additional areas being brought under supplementary survey as well as to the ordinary expansion of cultivation:—Akyab Rs. 45,326, Kyaukpyu Rs. 10,927, Pegu Rs. 73,409, and Tharrawaddy Rs. 54,973. The following districts yielded additional revenue owing to enhancement of rates as well as to the natural extension of cultivation:—Prome Rs. 29,841, where intermediate rates have given way to full rates in 100 *kwins*; Ma-ubin Rs. 1,26,020; Pyapôn Rs. 1,94,894; Myaungmya Rs. 71,752, where Revision Settlement rates have come into force in Ma-ubin Township, Kyaiklat Township and Kyaikpi Township respectively. Henzada shows an increase of Rs. 33,065 where full rates have displaced intermediate rates in Ôkpo and Kyangin Townships; Mergui also shows an increase of Rs. 94,268 owing to the introduction of Revision Settlement rates throughout the whole of the settled area of the district. In Shwebo an increase of Rs. 3,58,702 was due to the introduction of settlement rates throughout the district with the exception of the Shwebo Canal area.

Cost of Supplementary Survey.

51. The cost of superintendence and inspection increased from Rs. 4,44,146 to Rs. 4,56,806, *i.e.*, from Rs. 9·36 to Rs. 9·61 per square mile, and of the survey staff from Rs. 7,28,506 to Rs. 7,71,414, *i.e.*, from Rs. 15·35 to Rs. 16·23 per square mile. Apart from special causes affecting individual districts there was a

CHAP. II.—ADMINISTRATION OF THE LAND.

general increase owing to the revision of the Travelling Allowance rates granted to Superintendents and Probationers of Land Records, and to the grant of privilege leave to the subordinate staff. Increased establishments were sanctioned in several districts. The cost per acre of occupied land has risen from annas 1·247 to annas 1·280, and the percentage of the assessment has increased from 4·60 to 4·68.

Survey Schools.

52. The number of Government Survey Schools was nineteen or one more than in 1906-07. The new school was opened at Mergui on the 15th June 1908. It is required, because local surveyors are no longer readily procurable, candidates from the place not being inclined to go to the school at Moulmein. The total number of pupils on the rolls on the 31st March was 374; of these 33 per cent. chiefly in Upper Burma, paid no fees. The average number of students was 368, and the average number of days the schools were in session 267. Attendance decreased in Ma-ubin, Bassein, Sagaing, Insein, Yamèthin and Meiktila, while there were satisfactory increases in Henzada, Mandalay, Moulmein and Prome. In some of the schools of the dry zone the decrease is to some extent attributable to the agricultural depression of the year. Two hundred and twelve scholarships, 68 of Rs. 10 and 144 of Rs. 5 a month, were allotted to deserving scholars. The cost of these scholarships came to Rs. 14,907. There is a permanent demand for qualified surveyors and generally speaking suitable employment is readily obtainable in the Land Records and Settlement Departments and elsewhere if candidates are willing to work outside their own districts. In some centres, *e.g.*, Katha and Mergui, surveyors are often not procurable. In all, 124 passed pupils are reported to have obtained permanent or temporary appointments in the year. The total expenditure on the schools amounted to Rs. 39,446 against an income of Rs. 5,231; this gives the net cost at Rs. 34,215. The cost of educating each pupil thus works out to Rs. 91, which is about the same as the figure of the previous year. Technical education is always comparatively expensive. The number of candidates from Government Survey Schools who qualified at the Syndicate examination of April 1908 was 209 in Surveying, 92 in Arithmetic and 229 in Revenue Law; giving a percentage of passes on the number of pupils for examination in each of the subjects of 64, 30 and 76 respectively. The results are highly satisfactory as regards Revenue, in which successes were extremely limited heretofore; they are fairly satisfactory for Surveying and decidedly poor for Arithmetic.

Transfers of land.

53. The area of land sold during the year shows an increase of 2·93 per cent. over the figure of the previous year. The increase was not general however. Excluding the two districts of Hanthawaddy and Pegu, there was a very slight decrease in the area sold, despite an increase of 22·14 per cent. in Upper Burma where the harvest was bad. Throughout the remainder of Lower Burma good harvests and high prices are held to account for a decrease of 1·59 per cent. in the area sold. The price per acre of the land sold shows an increase of 9·36 per cent., but this again is due largely to the increased area sold at high prices in Hanthawaddy and Pegu. Excluding these two districts the increase of price is 4·66 per cent. The increased selling price of land is ascribed to the natural contraction of the area of culturable waste and to the prevailing high price of paddy. The area mortgaged during the year was 11·52 per cent. less than in the previous year despite the large increase of 29·62 per cent. in Hanthawaddy. This decrease is explained by the good harvest in Lower Burma, but in various districts there are said to have been other contributory causes. The bad harvest in Upper Burma accounts for an increase in the area mortgaged in several districts. The price per acre of land mortgaged during the year rose by 2·69 per cent., but excluding Hanthawaddy and Pegu, it has fallen by 6·31 per cent. This falling off is ascribed to the unwillingness of money-lenders to advance money on land to the same extent as before, and to the good season in Lower Burma which rendered it unnecessary for borrowers to mortgage their land to its full value. The area redeemed was 4·14 per cent. more than in the previous year and is equivalent to 93·25 per cent. of the area

mortgaged during the year. In most Lower Burma districts, however, the area redeemed exceeds the area newly mortgaged as indeed might be expected in a year of good harvest.

Waste Lands.

Grants and leases for cultivation.

54. The area granted or leased for cultivation during the year fell again from 41,542 to 31,934 acres. *Thugyis* usurped powers to dispose of State land in Minbu and Shwebo, and in the latter district much land had to be resumed and redistributed owing to its allotment by headmen to unsuitable persons. Waste lands claimed formerly as non-State, but declared State, are now in Shwebo popularly called "*bobabaing* State lands" and it is said that the original claimants seek, by payment of revenue, to sit as State tenants. About 637 acres were leased as *thugyisa* in Lower Burma in six districts and 259 acres were allotted in Upper Burma in six districts also. No great activity was displayed except in Pyapôn and Katha.

Revenue-free grants.

55. The area granted revenue-free for religious purposes was practically the same as in the previous year, but the area granted for public purposes fell from 79 to 21 acres. A bad season left little surplus for works of public spirit.

Government Estates and Wards' Estates.

56. There are no Government or Wards' estates in Burma.

Revenue and Rent-paying Classes.

Land revenue paying classes.

57. The total area occupied by agriculturists and non-agriculturists combined increased by 1·56 per cent. during the year, but the figures for certain districts are obviously incorrect. The area in the hands of agriculturists increased by only ·69 per cent., whilst the areas in the hands of resident and non-resident non-agriculturists increased by 3·74 and 8·05 per cent. respectively. Agriculturists now occupy 84·23 per cent. of the occupied area, a decrease of ·72 per cent. during the year. Out of 17 Lower Burma districts, however, nine show an increased area in the hands of agriculturists. The percentage of area occupied by resident to non-resident non-agriculturists has again fallen by 2 per cent. and now stands at 56.

Tenants.

58. The area let at full rents to tenants rose by nearly two hundred thousand acres to a total of 2,657,000 acres. The number of tenants which had decreased in the previous year rose again by over six thousand. The proportion of tenants who have rented their land continuously for five years increased slightly. In the Pegu and Irrawaddy Divisions it is said that the increase in the number of continuous tenants indicates the growth of an Indian tenant class content to remain on the land as long-term tenants, whereas the Burman prefers to take up new land if possible. The aggregate rent paid for land in the Province rose from 291 to 349 lakhs. The increase is attributed chiefly to high prices of paddy, rent being paid as a rule in kind rather than in cash.

CHAPTER III.

PROTECTION.

REFERENCES—

Report on the Police Administration of Burma for the year 1907.

Resolution on the Reports on Village Administration in Burma for the year 1907.

Report on the measures adopted for the extermination of Wild Animals and Poisonous Snakes in Burma during the year 1907.

Report on the Police Administration of Rangoon Town for the year 1907.

Report on the Administration of Criminal Justice in Burma for the year 1907.

Report on the Prison Administration of Burma for the year 1907.

Report on the Administration of Civil Justice in Burma for the year 1907.

Report on the working of the Registration Department in Burma during the three years ending the 31st December 1907.

Report on the working of the Indian Companies Act (VI of 1882), in Burma for the year 1907-08.

Report on the working of the Rangoon Municipality for the year ending the 31st March 1908.

Resolution on the working of Municipalities in Burma for the year ending the 31st March 1908.

Report of the Public Works Department, Burma (Buildings and Roads Branch), for the year 1907-08.

Report of the Commissioners for the Port of Rangoon for the year ending the 31st March 1908.

Annual Statement of the Sea-borne Trade and Navigation of Burma and Foreign Countries and Indian Ports for the year 1907-08, Part III, Shipping.

Report on the Maritime Trade and Customs Administration of Burma for the year ending the 31st March 1908.

Report on Government Steamers, Vessels and Launches in Burma for the year 1907-08.

Forty-second issue of the Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries in the year ending the 31st March 1908, and the four preceding years, Volume II, Shipping, Tables 1, 6 and 7.

Forty-second issue of the Annual Statement of the Coasting Trade and Navigation of British India for the year ending the 31st March 1908, Tables 2 to 7.

Second issue of the Statistics of British India for 1907-08 and preceding years.

L I

59. The constitution of the Legislating Authority of the Province is described in paragraphs 106 to 109 of the Report on the Administration of Burma for the year 1901-02.

Course of Legislation.

Work of Legislative Council.

60. The five Bills described in paragraph 37 of the Report for 1906-07 became law during the year as Burma Acts, I, II, III, IV and V of 1907. The Burma Village Bill, the Lower Burma Courts Act Amendment Bill and the Burma Defile Traffic Bill, referred to in the same paragraph, became law during the year as Burma Acts, VI, VII and VIII of 1907. By the first the law relating to village administration was consolidated throughout the Province, and the Lower Burma Village Act, 1889, and the Upper Burma Village Regulation, 1887, together with their several amending Acts were repealed. While certain minor changes have been made the principles of village administration have not been altered. The main object of amending the Lower Burma Courts Act, 1900, was to give the right of appeal to the Chief Court from decisions of the Court of Small Causes, Rangoon, where the value of suits exceeded Rs. 1,000. By a Local Government notification under section 83 of the Lower Burma Courts Act, 1889, the jurisdiction of the Rangoon Small Cause Court was extended to cases not exceeding Rs. 2,000 in value. In consequence of these orders the trial in such cases was summary and the decision final, subject only to revision. As a suit of greater value than Rs. 1,000 is not strictly speaking a small cause, the right of appeal has now been given in all such cases, evidence is taken in the ordinary way and notice of appeal must be given within a month of the decision of the cause.

By the Burma Defile Traffic Act legal authority is obtained for regulating the traffic of rafts, steam-launches and other vessels between Sinbo in the Myitkyina District and Bhamo. The executive orders previously in force were found inadequate, as a breach of them did not amount to an offence, since they were not based on any enactment.

During the legislative year, *viz.*, from 1st April 1907 till 31st March 1908, three other Bills, *viz.*, the Rangoon Victoria Memorial Bill, the Burma Municipal Act Amendment Bill and the Burma Towns Act Amendment Bill were passed by the Local Legislature, though the dates of their publication as Burma Acts, I, II and III of 1908 were subsequent to the 31st March 1908. By the first of these Acts the Victoria Memorial Park and Zoological Gardens are vested in Trustees and provision is made for their management and maintenance as a memorial to the late Queen-Empress. The object of the amendment of the Municipal Act is to carry out a number of alterations and additions in practice found to be necessary. By the amendment of the Burma Towns Act, billiard saloons and similar places of public resort are required to be licensed and to be subject to certain regulations whereby the abuses previously associated with these places may be abated.

61. The undermentioned General Acts affecting Burma were passed by the Governor-General in Council :— General Acts affecting Burma.

[General Acts of 1907.]

III.—The Provincial Insolvency Act, 1907.

V.—An Act further to amend the Local Authorities Loan Act, 1879. [The Local Authorities Loan (Amendment) Act, 1907.]

[General Acts of 1908.]

I.—An Act further to amend the Legal Practitioners Act, 1879. [The Legal Practitioners (Amendment) Act, 1908.]

II.—An Act further to amend the Indian Tariff Act, 1894. [The Indian Tariff (Amendment) Act, 1908.]

III.—An Act further to amend the law relating to Private Trusts and Trustees. [The Indian Trusts (Amendment) Act, 1908.]

IV.—An Act further to amend the Coroners Act, 1871, and the Prisoners Act, 1900. [The Coroners (Amendment) Act, 1908.]

Two Regulations affecting Burma were enacted during the year, namely, Regulation I of 1907 (The Upper Burma and Arakan Hills Frontier Crossing and Disturbed Districts Regulation, 1907), and Regulation VI of 1907 [The Upper Burma Land and Revenue (Amendment) Regulation, 1907].

62. Certain provisions of the Upper Burma Land and Revenue Regulation, 1889 (III of 1889), were extended to the notified areas of Taunggyi and Lashio and to the State of Möng Mit and its dependency Möng Lāng; and the undermentioned enactments were extended to all the Shan States :— Extension of Enactments to the Shan States.

(1) Indian Electricity Act, 1903 (III of 1903);

(2) Indian Extradition Act, 1903 (XV of 1903);

(3) Upper Burma and Arakan Hills Frontier Crossing and Disturbed Districts Regulation, 1907 (I of 1907);

(4) Epidemic Diseases Act, 1897 (III of 1897);

(5) Burma Motor-vehicle Act, 1906 (Burma Act II of 1906).

Police.

CHAP. III.—PROTECTION. Police Commission Reforms.

63. In respect of the Police Administration of the Province, the past year was one of transition. The re-organization of the force in accordance with the recommendations of the Police Commission was carried into effect. The force, as thus re-organized includes, besides Gazetted Officers, Inspectors, Sub-Inspectors, Sergeants, Head Constables and Constables. The pay of all ranks was increased, and the new rank of Deputy Superintendent was created. The rates of pay of Inspectors now range from Rs. 150 to Rs. 250 a month, instead of Rs. 140 to Rs. 175 as before. The prospects of Deputy Superintendents have been further improved since the close of the year by the appointment of two officers of that rank to officiate as District Superintendents. The strength of the several ranks and grades having been fixed in accordance with the recommendations of the Police Commission, the distribution of the force was revised, the circumstances of each district being carefully examined. Substantial additions were made to the Police force of districts, mainly in Lower Burma, where crime is prevalent, while in other districts the force was reduced. The strength of the force in Lower Burma could not be brought up to the full sanctioned strength during the year under review and the increase cannot have affected to any appreciable extent the statistics of crime and detection in that year. The result of the re-organization on the strength of the force was a substantial increase in the sanctioned number of Sub-Inspectors (equivalent to Head Constables and Sergeants under the old nomenclature), Head Constables (who have taken the place of the lowest grades of Sergeants), and Constables. The effect on recruitment and on the personnel of the lower ranks of the introduction of the incremental system of pay of Constables, combined with other new conditions of service, is yet to be seen. The scheme for the reconstruction of the cadre of Superintendents and Assistant Superintendents was in operation throughout the year. Eight officers retired on special pensions. Five officers recruited in England were added to the strength and two were appointed in India. As officers recruited in England have to be under training at the Police Training School for eighteen months after their arrival, the immediate result of these measures is a serious lack of superior officers. This is being supplied by the appointment of Military officers to the Civil Police, the first appointments of this kind under the new scheme having been made soon after the close of the year of report. The paucity of senior officers rendered it difficult adequately to provide for the administration of the police of all districts. Progress was made in carrying out the extensive reforms of procedure ordered in consequence of the Report of the Police Commission. The work is laborious and has been protracted.

Important incidents.

64. Three incidents occurred during the year which demand notice. These were an abortive attempt at rebellion by an *ex*-monk at Sèdaw in the Shwebo District, the escape of a prisoner from the Police Station at Yinmabin in the Lower Chindwin District, and the escape of ten prisoners from the Police Station at Kungyangôn in the Hanthawaddy District. The abortive rising at Sèdaw was of no political significance; but it indicated the need of contant vigilance on the part of Police and District Officers. Incidentally, the circumstances of the case gave proof also of the satisfactory completeness with which disarmament has been effected. The escapes at Yinmabin and Kungyangôn were far more serious. They afforded evidence in varying degrees of extreme laxity of discipline and want of proper supervision. The need of constant care and attention to the maintenance of discipline has been impressed on officers of all ranks. The success of the Hanthawaddy Police in securing the early re-arrest of all the escaped prisoners from Kungyangôn, except those who were killed in contests with their pursuers, and the recovery of all the arms taken away, to some extent atoned for the *laches* which rendered the escape possible.

CHAP. III.—PROTECTION. Strength, distribution and cost.

65. The sanctioned strength of the Civil Police force, excluding the Rangoon Police, at the end of 1907 was 1,139 officers and 13,553 men as compared with 1,695 officers and 11,892 men at the end of the previous year. The increase in numbers is due to the re-organization, the reduction in the staff of officers being apparent only, as 609 Head Constables who were shown as "officers" in 1906 are now shown as "men." The force was much short of strength, but this state of things was mainly due to the fact that in districts where increases have been sanctioned under the re-organization, there had not been time to find suitable recruits to fill up the complement. The re-organization has involved numerous changes of distribution the net result being a decrease of 23 Police-stations and an increase of 12 outposts. The cost of the force rose by nearly two and a half lakhs to Rs. 47,44,295, the increase being due to the re-organization.

Recruitment and conduct.

66. Difficulty in recruiting is still reported from the Thatôn, Myitkyina, Katha and Hanthawaddy Districts. The total number of dismissals for all causes during 1907 was thirteen officers and 417 men, a decrease of eighteen officers and 69 men on the figures of 1906. Other departmental punishments and magisterial convictions do not show any great variation in numbers, but under all heads the improvement as regards the number of officers punished is noteworthy. This change for the better may, however, be due in part to the removal of the lowest grades of Sergeants, under the designation of Head Constables, from the category of officers. Resignations were not so numerous as in the previous year. On the other hand there was a considerable falling off in the number of rewards granted.

Buildings.

67. Nearly three and a half lakhs were allotted in the Budget of 1907-08 for Civil Police buildings, of which the most important is the Training School at Mandalay estimated ultimately to cost five lakhs. The allotment for Petty Construction and Repairs exceeded two lakhs. More than one thousand police cottages were reconstructed or improved and steady progress is being made in providing suitable quarters for the whole force. The importance of the housing problem is recognised by Government, but it is not possible to build houses or barracks at once for all the increased establishments in Lower Burma.

Crime and the working of the Police.

68. The annual returns show a substantial diminution in the volume of crime dealt with by the Police. The total decrease under true cognizable cases amounted to 2,507 cases. The diminished figure, just under 40,000 cases, differs little from the average total of the past few years. Excluding cases under Class VI, which deals only with "Offences against religion," "Public Nuisances" and "Offences under special and local laws," none of which can be characterised as true crime, the improvement is reduced to the still satisfactory total of 1,464 cases. This result is mainly accounted for by a decrease of 1,186 cases under Class V, Minor offences against Property. There was also an appreciable decrease of 162 cases under the main heads of Class II, Serious offences against the Person, a smaller decline under Class III, Serious offences against Property, and a comparatively large reduction in the unimportant Class IV, Minor offences against the Person. The number of cases shown in Class II and in Class IV is below the average of recent years, while the total of Class III is still well above the normal figure. The reduction in the volume of crime is gratifiying, but the continued increases of violent crime and to a less extent of cattle-theft are unsatisfactory features of the year's work. Violent crimes numbered 931 against 920 in 1906. The number of dacoities rose from 100 to 108, while robbery and house-breaking exhibit an unwelcome though comparatively slight expansion. Cases in which fire-arms were carried also increased from 62 to 69. Both the number of violent crimes and the number of cases in which fire-arms were carried

CHAP. III.—PROTECTION.

are in excess of the figures of recent years. The question of the further measures to be taken to regulate the possession of fire-arms is being carefully considered in consultation with the officers concerned. In respect of dacoities great improvement is recorded in the Arakan and Pegu Divisions and a noticeable retrogression in Upper Burma common to all divisions and to nearly all districts. In the dry zone the increase of dacoities is attributed to scarcity. Nine organized gangs of dacoits and robbers were in existence at one time or another during the year. This class of crime was, however, very successfully dealt with. Six gangs were completely accounted for and out of the three remaining gangs, consisting of 12, 13 and 4 men respectively, only three men belonging to the first and two belonging to each of the other gangs remained at large at the end of the year. A comparatively small, but not the less disappointing, increase of 50 cases of cattle theft is reported. Gradual expansion in this class of crime has taken place in the last four or five years and the present figure is considerably above the average of recent years. The largest increases were in Tharrawaddy and Thatôn and the most important reductions in Hanthawaddy and Pegu. In the two first-named districts and elsewhere increases are attributed in part to better reporting. Improvement in the Hanthawaddy and Pegu Districts is ascribed to the deportation of Aung Min, a notorious organiser and receiver, and to the death and conviction respectively of two other men of the same class.

Detection.

69. Exclusive of cases under special laws which may be left out of account in considering the results of police work, a total of 25,964 true cases as compared with 27,428 cases in 1906 were dealt with by the Courts and Police. Of this number the police held investigation into 22,849 and refused investigation into 1,810 reports, and 11,747 cases out of the 22,849 investigated ended in conviction. The measure of success obtained was 51 per cent. as against 50 per cent. in 1906. The proportion of cases convicted to cases tried remained the same as in 1906, namely, 85 per cent. Detection in murders and in cases of nuisance and ordinary theft showed improvement. The total value of property stolen in cognizable cases amounted to Rs. 15,35,184 as compared with Rs. 20,65,084 in the previous year. Recoveries totalled Rs. 4,90,067 against Rs. 4,36,705. The percentage of recovery works out at 32, an improvement of 11 per cent.

Preventive law.

70. The principles to be followed in working the provisions of the Code of Criminal Procedure, 1898, relating to the prevention of offences were discussed in the Government Resolution on the Police Report for the year 1905. While emphasizing the importance of these provisions of the law, the Lieutenant-Governor pointed out that they should not be directed against petty offenders, but against those who are likely to commit serious crimes and particularly the organisers of crimes such as cattle theft. The effect of these observations is visible in a large decline in the number of prosecutions during the year of report, as 2,145 persons only were prosecuted in 1907, as compared with 3,218 prosecutions in the previous year. One thousand six hundred and seventy-two convictions were obtained the proportion of conviction being 78, or 1 per cent. better than in 1906.

Surveillance and identification.

71. The large number of untraceable Police Registered criminals was further reduced during the year. A satisfactory expansion is reported in the number of cases in which the Courts have availed themselves of the provisions of Section 565 of the Code of Criminal Procedure, 1898, relating to the notification of residence of released convicts. The work of the Criminal Investigation Department continued to expand and good results are reported. Further progress was made in the work of checking the slips of convicts in jail and of search finger prints with the indexes of the Crime Gazette, and as a result a considerable number of absconders were traced and arrested. Revised and more elastic rules relating to beat patrols were issued and changes in the arrangement of beats were necessitated everywhere owing to the re-organization of the force. As usual beat constables are said to have done good work and the system is well reported on.

Railway Police.

72. Owing to the extension of the Pegu-Moulmein and Henzada-Kyangin lines of railway, the Railway Police force was increased by one Inspector, three Sub-Inspectors, seven Head Constables and 22 Constables. The sanctioned strength at the end of the year was 63 officers and 345 men. The cost of the force rose from Rs. 1,25,022 to Rs. 1,33,650. The length of the Railway line reached 1,527¼ miles. Two new stations and an outpost were opened during the year. The number of true cases dealt with rose from 968 to 1,163. Cases of theft from waggons and trains were much more numerous than in 1906, and detection showed a noticeable falling off compared with the results of the previous year.

Military Police.

73. Towards the end of the year of report, a scheme involving a net addition of 351 men to the strength of the Lower Burma Military Police force was sanctioned by His Majesty's Secretary of State. The Henzada and Toungoo Districts have been transferred from the Rangoon to the Toungoo Battalion, the strength of the former Battalion being reduced by 220 and that of the latter increased by 440 men, while the Military Police of the Salween District, numbering 131 men, have been constituted into a separate local force on the same lines as the Military Police in the Hill Tracts of Northern Arakan. Two appointments were also added to the cadre of Assistant Commandants in order to provide a leave reserve. The increase in Lower Burma was sanctioned too late in the year to allow of recruitment up to the revised sanctioned strength, but even with the omission of the additions newly sanctioned, the force was 344 men below strength as compared with a deficiency of 325 men in the previous year. Plague and famine in India are said to have affected recruiting. The cost of the Military Police, just over 54 lakhs, was some Rs. 40,000 less than in 1906. The only notable incident of the year was the attack on the Auchè Military Police Post in the Myitkyina District by Sana Kachins which was repulsed without casualty on the defenders' side. The general health of the force was much the same as in previous years. No active operations were undertaken. The manner of the employment of Military Police patrols during the open season was considered during the year. It was decided that such patrols should be employed to supplement the Civil Police and not to relieve them of legitimate responsibility. Orders to ensure their more efficient working were issued.

Punitive Police.

74. The imposition of punitive police on certain villages in the Hanthawaddy, Prome and Yamèthin Districts during the year 1906 is reported to have had good results. In the year of report four further detachments of punitive police were quartered in the Oktwin and Yedashe Townships, Toungoo District, in Chaungdwin Village, Pyapôn District, and in villages of Kani Township, Lower Chindwin District. In the first three cases action was taken owing to the prevalence of violent crime and to the failure of the inhabitants to assist in detecting and suppressing it, and in the case of Kani Township the villages were punished for withholding information regarding Nga Myin, leader of the abortive rising at Sèdaw.

Village Administration.

75. The total number of headmen in the Province shows a decrease of 115 since 1906 (17,913 as compared with 18,028). The greater part of this diminution was due to the revision of a number of charges held by headmen subordinate to circle headmen made with a view to obviating a re-arrangement when the time came for the circles to be broken up. The application of this policy in the Lower Chindwin District resulted in the withdrawal of the appointment orders of 79 subordinate headmen drawing no commission. Apart from the Lower Chindwin the decrease was fairly evenly distributed and was due to various causes, the chief being the combination of independent charges which had become too small to be placed under separate headmen. The disintegration of circles continued to progress as casualties among the circle headmen occurred, the process being most rapid in the Akyab, Henzada and Lower Chindwin Districts. The definition of headmen's jurisdictions is proceeding, but much still remains to be done in this regard in parts of the Province, notably in the Mandalay Division. The number of headmen exercising special criminal powers increased by 64 from

CHAP. III.—PROTECTION.

637 to 701 and the number of those exercising special civil powers by 59 from 874 to 933. On the whole village officials disposed satisfactorily of a large number of petty civil and criminal cases which would otherwise have had to be tried by Township Magistrates and Judges. The aggregate amount of fines inflicted by headmen was Rs. 1,28,201, a figure Rs. 1,905 below the total of 1906. There were 1,817 more revisions of headmen's orders than in 1906. The work done by village headmen in the assessment and collection of revenue was again reported to be generally satisfactory, and the number of headmen dismissed or removed for fraud or embezzlement is relatively small. The question of making the inhabitants of a village tract collectively responsible for the honesty of their headmen with regard to Government money was under consideration. In the detection of excise cases there is still much lack of initiative on the part of headmen. It is probable that the fear of unpopularity is the principal reason for the supineness complained of. The efforts which have been made to combat plague have induced some improvement in village sanitation, but apart from the special effort on this account, there is little progress to record under this head. The work done by headmen in the collection of vital statistics and with regard to agriculture and scarcity was on the whole good, though in Myaungmya the Deputy Commissioner had to report that the birth and death registration work was at one time so lax as to be almost useless. Cordial relations between the headmen and police are reported to exist in all districts. There is also a general consensus of testimony that much good work has been done by headmen in the detection of crime. Three hundred and thirty-six headmen were removed or dismissed, 55 suspended and 749 fined, as against 332, 74 and 945 respectively in 1906. In addition to the decrease in fines an indication of improved work and conduct is afforded by the total of rewards, which rose from 800 to 925. The number of villages fined otherwise than under the track law fell from 229 to 213, and there was a corresponding decrease in the amount of fines imposed. There were several instances of successful resistance by villagers to dacoits and robbers. But in general it cannot be said that villagers have yet learned to defend themselves against attack. The track law was enforced in one case less than in 1906. It is reported that there is a tendency for the law to fall into desuetude in the Pegu Division, where the owners are said to prefer ransoming their stolen cattle to following their tracks and recovering them, and the figures showing the fines under the law for the last few years certainly support this view. Better fencing resulted in a diminution in the number of cattle thefts and a consequent decrease in the application of the track law in the Sagaing and Meiktila Districts. Large numbers of persons were ordered to remove under the Village Regulation in the Shwebo and Pakôkku Districts in connection with the abortive rising at Sèdaw, and in the Tenasserim Division resort was had to this measure to procure the breaking up of gangs of dacoits. In this division also progress was made in the removal of isolated huts to recognised village areas. The punishment of villages by withholding permission for *pwès* for a specified period has been found effective in the Irrawaddy Division as a means of preventing affrays and inducing the arrest of absconding offenders. The Village Law for Upper and Lower Burma has been embodied in a single Act for the whole Province, and the republication of the various orders and circulars under the old Act and Regulation is now being carried out. The effect of the consolidation will be further to emphasize the corporate responsibility of the village tract and to confirm and strengthen the authority of headmen. The opportunity has been taken to introduce some useful delegations of authority.

Wild Animals and Snakes.

76. The total mortality caused by wild animals and snakes amongst human beings during 1907 was 1,424 as compared with 1,237 in 1906. The number of persons killed by wild animals has fallen from 88 to 76. The total mortality amongst human beings from snake-bite during the year under report was 1,348 as compared with 1,149 in 1906. The deaths nearly all occurred in paddy tracts where the Russel's viper is particularly prevalent. Steps have been taken during the year to ensure a wide distribution of Sir Lauder Brunton's lancets. It is too early yet to pronounce

with any certainty as to the success of the experiment. But reports have been received from a large number of districts to the effect that the lancet has been used by village headmen with favourable results. The mortality amongst cattle during the year was 11,697 as compared with 11,624 in 1906. In the number of deaths caused by wild animals there was a considerable decrease, the figures for the year shewing 6,236 as compared with 7,125 in 1906. There were 5,461 cattled killed by snake-bite during the year as compared with 4,499 in 1906. The most noticeable increases are reported from districts in Lower Burma where the rainfall was abnormally heavy, and the floods in low-lying tracts unusually high. The number of wild animals killed during the year was 2,391 as compared with 2,269 in 1906, and the amount paid in rewards rose from Rs. 34,164 to Rs. 39,284. Wild elephants were responsible for the destruction of crops in some districts, and 13 were killed during the year. Four hundred and sixty-three new licenses under the Arms Act were issued in 1907, and the total in force during the year was 1,034 as compared with 952 in 1906.

Rangoon Town Police.

77. The Police Force in Rangoon Town continued to be administered separately from the Provincial Police employed elsewhere. The re-organization carried out in accordance with the orders of Government on the Report of the Police Commission was completed during the year and the present force and its methods of work are largely the outcome of the Commission's deliberations. On the 1st January 1908 the sanctioned strength of the Town Police was 1,034 officers and men, 89 more than in the previous year, and the actual strength on the same date was 1,023. The total cost amounted to Rs. 4,49,126, an increase of Rs. 41,235. The good conduct of the police as a body was fully maintained. Departmental punishments increased from 320 to 329; dismissals and removals fell from 26 to 21, and as in the previous year only two members of the force were convicted by Magistrates. There was also an increase in the number of rewards for good conduct. Six officers and 74 men resigned as compared with one officer and 62 men in 1906. The increase is attributed to the prevalence of famine and plague in the Indian districts from which the force is mainly recruited. By an amendment of the Rangoon Police Act made early in the year, the police in Rangoon were invested with the power of arresting without a warrant any person who, in their view, commits an offence under the Act and whose name and address are unknown and cannot be ascertained then and there. The result of this amendment was immediately visible in an increase from 9,776 to 12,840 in the number of cognizable cases under special and local laws and a corresponding diminution in the number of non-cognizable offences. The number of offences under the Indian Penal Code, the true criterion of the prevalence of crime, showed only a nominal increase. Cases of murder, attempts to murder, and culpable homicide were only half as many as in the previous year. On the other hand, hurt by dangerous weapon has been steadily increasing during the past three years and there was no decrease in the number of offences against property. The number of robberies, already high in 1906, showed no diminution during 1907, and the figures for house-breaking and house-trespass were substantially higher than in 1906. It is believed that a large number of the house-breaking cases were the work of a single gang of expert house-breakers, two members of which were arrested and convicted during the course of the year. Exclusive of cases in which investigation was refused, there was a very slight decrease in the number of cases of theft. The improvement in the lighting of the town which has recently been effected will, it is hoped, be of assistance to the police in the prevention and detection of cases of hurt, thefts and house-breaking. Although the percentage of cases convicted to true cases investigated was, on the whole, slightly less than in 1906, there was a distinct improvement in the detection and pursuit to conviction of crimes of the graver kinds. The conviction of the offenders in 11 out of 15 cases of robbery is noticeable. The actual percentage of convictions for thefts was lower than that of the previous year and the ratio of property recovered to that stolen has also decreased very considerably. Several reasons have been adduced in explanation of these facts, among them being the

CHAP. III.—PROTECTION.

insufficiency of the investigating staff, the difficulty of detecting petty house-thefts in Cantonments, and tracing receivers of stolen property, and the hindrance to effective patrolling caused by the bad lighting of the Cantonment roads. The investigating staff has recently been reorganised and improved, and might have been expected to show better results than in previous years. Additions were made to the force early in the year in order to supervise pawn-shops and discover receivers, and orders have been passed for increasing the responsibilities of pawn-brokers in regard to stolen property.

Criminal Justice.

Courts.

78. The Administration of Criminal Justice in the Province was in the hands of the Chief Court, Lower Burma, assisted by 266 Judges and Magistrates, and 25 Benches of Honorary Magistrates, and of the Judicial Commissioner, Upper Burma, who had under his control 202 Judges and Magistrates, and 6 Benches. If Benches are kept out of account, 145 Europeans and 329 Natives of India acted as Judges and Magistrates as compared with 131 Europeans and 316 Natives in 1906. The transfer of the Thayetmyo District from the Bassein to the Prome Session Division took effect from the 1st January 1907. In Upper Burma the Administration of Criminal Justice in the Chin Hills and the Pakôkku Hill Tracts, in the case of accused persons other than Chins, was brought under the control of the Judicial Commissioner. The change involved an increase of one Sessions Judge and two District Magistrates in the number of Judicial officers. The number of offences reported during the year 1907 (94,909) was considerably above the figure of the previous year (90,804). The increase was confined entirely to Lower Burma as the number of offences reported in Upper Burma showed a slight improvement. As in the case of the large decline in 1906 the variation in the number of prosecutions under special and local laws in Rangoon, especially under the Police, Cantonment and Vaccination Acts, was sufficient to explain the whole of the difference in Lower Burma, variations in other districts and in respect of more serious offences merely serving to counterbalance one another. Fluctuations under the head of cognizable crime have already been commented on in paragraph 68. Out of the total number of offences reported, 93,043 were brought to trial and 82,442 were returned as true. The percentage of cases brought to trial was somewhat higher, while the proportion of cases returned as true was the same as in 1906. Ninety-five thousand and ten persons were convicted out of 165,155 under trial during the year. In 1906 the corresponding figures were 89,337 and 154,318, the rates being practically the same in both years. The number of complaints summarily dismissed under sections 203 and 204 of the Code of Criminal Procedure, 1898, fell off in Lower Burma, while there was some improvement in Upper Burma. Fewer cases were dealt with under section 562 relating to the release of first offenders in both sections of the Province. Six thousand two hundred and forty-six persons were under trial at the end of the year. The reduction under this head, 261 persons, was common to Upper and Lower Burma.

Disposal of cases.

79. The number of original criminal cases disposed of during the year rose from 86,858 to 91,799. Cases disposed of by Benches of Honorary Magistrates numbered 25,924 against 21,336, the increase being mainly due to the larger number of prosecutions under special and local laws in Rangoon. The average duration of each case declined from twelve to eleven days in Lower Burma and rose from nine to ten days in Upper Burma. The proportion of cases tried summarily was 41 per cent. in Lower Burma and 25 per cent. in Upper Burma. Six hundred and fourteen cases were disposed of by Courts of Session as compared with 631 in 1906. Seven hundred and twenty-three persons were tried with assessors in Lower Burma and 14 in Upper Burma, and 137 persons were tried by jury in Lower Burma. The proportion of convictions in Sessions cases declined in Lower Burma, and showed no variation in Upper Burma. The number of cases committed to the Chief Court fell from 85 to 69. References

to the Chief Court and to the Judicial Commissioner for confirmation of sentences of death numbered 107. In 68 cases the sentence was confirmed. CHAP. III.—PROTECTION.

80. Fines were inflicted on 74,260 persons, an increase of 6,370 persons over the figure of the previous year, due to the larger number of prosecutions under local and special laws. On the other hand, the total amount of fines imposed fell from 8·16 to 7·77 lakhs. Sentences of whipping decreased from 3,185 to 3,088, and there was a satisfactory diminution in the number of sentences of ten stripes and under. The percentage of whippings to the total number of cases in which whipping might legally have been inflicted declined considerably in Upper Burma, and the Judicial Commissioner invites attention to the reluctance of subordinate Magistrates to award this form of punishment. Sentences of whipping in addition to other punishments, which are chiefly imposed for theft after previous conviction, were less numerous. Imprisonment for a few days only was less frequently resorted to in Lower Burma, but in Upper Burma there was an unsatisfactory increase in such sentences. Twenty-one boys, three more than in 1906, were sent to a Reformatory School. The amount of fines paid by way of compensation to complainants, Rs. 40,000, was the same as in the previous year. **Punishments.**

81. The number of regular appeals disposed of during the year rose from 7,333 to 7,875, the increase being common to Upper and Lower Burma. The proportion of sentences confirmed was 65 per cent. in Upper Burma and 70 per cent. in Lower Burma. Appeals to the Chief Court and to the Judicial Commissioner were more numerous, especially the latter, owing to the larger number of persons sentenced by Sessions Courts in Upper Burma. The sentences of 54 persons were enhanced on appeal—all in Upper Burma. The appeals of 367 persons were pending at the end of the year, the Upper Burma figure showing a small increase. The average duration of appeals rose from 17 to 18 days in Lower Burma and fell from 13 to 12 in Upper Burma. **Appeals.**

82. Due attention was given to inspection and supervision during the year, and instructions were issued by the Chief Court reminding Sessions Judges and District Magistrates of their responsibility for the correction of illegalities and irregularities appearing on the face of the periodical criminal statements. The total number of persons whose cases were dealt with in revision fell from 30,889 to 28,683. Upper Burma was mainly responsible for the falling off. The original sentence was enhanced in 100 cases, confirmed in 24,280, reduced or altered in 279, and reversed in 1,295 cases. Interference was slightly more frequent than in the previous year. **Revisions.**

Prisons.

83. The closing on the 15th November 1906 of the District Jail at Taungdwingyi which had accommodation for 80 prisoners left the Province with six Central and 24 District Jails providing accommodation for 15,010 prisoners as compared with 15,322 during the year 1906, the further difference of 232 being mainly accounted for by a reduction in the number of prisoners assigned to the Ma-ubin Jail. The daily average population was 13,721, and the number remaining at the end of the year 14,304, as compared with 13,370 and 14,129 respectively in 1906. The Meiktila Jail which it has been decided to set apart for the confinement of juvenile prisoners, will, after certain structual alterations are carried out, provide accommodation for 100 juvenile first offenders and 50 juvenile habituals. It is believed that, when these arrangements are complete, it will be possible to add very largely to the reformatory and educational character of sentences of imprisonment passed on juvenile offenders. Some progress was made during the year in formulating proposals for the separation of habitual from casual prisoners and the structural alterations required for effective separation are being carried out in jails where **Accommodation.**

CHAP. III — PROTECTION.

it is possible to secure the end in view without undue expenditure. The supervision of habitual prisoners by convicts of their own class has been recognized as inconsistent with the orders prohibiting the employment of habituals as prison officers and the experiment was definitely abandoned in the course of the year. It was decided to introduce instead a system under which habitual convicts will be supervised exclusively by paid warders. This change involves considerable expense and it cannot be introduced immediately in all the Jails of the Province. The employment of an increased number of paid warders for the supervision of habituals in the Mandalay, Insein and Myingyan Jails has been sanctioned, but for the present casual convict officers will be employed for the purpose in other jails.

Prisoners.

84. The number of prisoners received into jails during the year showed a decrease over the total of the previous year under all classes. The year opened with a total population of 14,129 and closed with a population of 14,304. The number of prisoners received by direct committal and by transfer was 34,473 as compared with 35,674, and the number discharged from all causes totalled 34,298 against 34,773 in 1906. The daily average rose to 13,721 surpassing the high figure of the previous year. Releases under the ordinary remission rules rose from 4,765 in 1906 to 4,774 in 1907. The number of reconvicted prisoners was 4,090 against 4,420 in 1906, and the ratio per cent. to the total number of convicts admitted was 22·09 against 22·94 in the previous year. The Bassein Jail again had the highest ratio, *viz.*, 33·58. The number of youthful offenders, under 15 years of age, committed to jail was 39 (all males) of whom 13 had been previously convicted against a similar number in 1906 with 11 who had been previously convicted.

Discipline.

85. Though the daily average number of convicts increased from 12,606 to 13,008, the number of prison offences declined from 42,109 to 38,484. Twenty-one out of the total number were dealt with by criminal courts and the rest by Jail Superintendents. In the previous year 17 offences came before Magistrates. The general decrease of 54 in the number of offences relating to assaults, mutiny, and escapes, though not so marked as in the previous year, is still satisfactory. Four assaults of a serious nature, two at Rangoon, one at Henzada, and one at Thayetmyo occurred during the year. The most serious was at Rangoon where a leper prisoner destroyed the sight of the left eye of another prisoner, also a leper, by stabbing him with his neck-ticket while he was asleep. For this he was sentenced to seven years' transportation. A reduction in the number of offences occurred under all heads except "offences relating to prohibited articles." The punishments of penal diet, with and without solitary confinement, fell from 2,547 to 1,079. The ratio of all punishments to average population fell from 334·04 to 295·85. Of the total number (38,484) of offences committed by all classes during the year, 21,186 were committed by habituals, showing that though the habitual class in the jails during the year represented only 39·2 per cent. of the average population, about 55·05 per cent. of the punishments were inflicted on them. The number of floggings fell from 129 in 1906 to 121 in 1907. The number of punishments inflicted on convict offenders, who averaged 2,336 during the year, was 9,378 or 4.01 punishments for each convict officer as compared with 11,226 or 4.7 in 1906. The extra privileges allowed to convict warders as an experimental measure were made permanent in September 1907 and the following additional privileges granted :—

(*a*) The payment of a gratuity not exceeding eight annas a month, and
(*b*) the substitution of a small mat or *duri* for the piece of gunny previously allowed.

There were six escapes during the year as compared with 12 in 1906.

Financial.

86. The gross cost of up-keep of the jails increased from Rs. 8,06,500 to Rs. 8,09,401, but the average cost per prisoner fell from Rs. 60-5-2 to Rs. 58-15-10 owing to the average population being higher than in 1906.

Deducting the cash earnings of prisoners from the gross cost of maintenance, the net cost of the Prison Administration was Rs. 6,22,217 against Rs. 6,00,732, or Rs. 45-6-0 against Rs. 44-15-0 in the previous year. The manufacture profits fell from Rs. 2,05,768 to Rs. 1,87,183. By the employment of jail labour in the execution of "jail works and repairs" a saving of Rs. 18,864 accrued to Government during 1907. The profits of the Jail Branch Press, which increased from Rs. 1,61,050 to Rs. 1,67,224 are not included in the total earnings. The total estimated value of vegetables produced from jail gardens was Rs. 81,925 as compared with Rs. 78,647 in the previous year. The value of paddy, *dhal*, *pègya*, condiments and tamarind obtained from jail farms was Rs. 23,758 as compared with Rs. 25,355 in 1906. CHAP. III.—PROTECTION.

87. The health of the prison population surpassed the remarkably good results obtained in 1906. Though the daily average number in confinement rose from 13,370 to 13,721, the number admitted into hospital decreased from 3,736 to 3,506, the daily average sick from 211 to 190, and the deaths from 198 to 163. Indeed, the ratios of admissions, daily sick, and deaths are the lowest recorded since 1892, *viz.*, 255·52, 13·85 and 11·88 respectively. The ratio per cent. of opium consumers admitted into jail increased from 14·17 to 15·44. Bhamo and Henzada show the highest percentages, *viz.*, 44·39 and 44·03 respectively. Fifteen per cent. of the total mortality was amongst opium consumers. Vital.

Civil Justice.

88. The administration of Civil Justice during the year 1907 continued to be under the control of the Chief Court, Lower Burma, with four Judges and of the Judicial Commissioner, Upper Burma. In Lower Burma there were 6 Divisional and 21 District Courts and in Upper Burma 4 of the former and 18 of the latter. Each district is divided into Civil subdivisions and Civil townships. During the year the administration of Civil Justice in the Chin Hills and the Pakôkku Hill Tracts was brought under the control of the Judicial Commissioner, Upper Burma, involving the addition of two to the number of District Courts. One hundred and four Europeans and 248 Natives were employed as Civil Judges at the close of the year. The number of Europeans was the same as in the previous year, while 14 new appointments of Native Judges were created. The re-organization of the subordinate judiciary was sanctioned during the year and came into effect from the 5th May 1907. The re-organization consisted in the substitution for the former Township Judicial Service of separate Provincial and Subordinate Services corresponding to the Provincial and Subordinate Civil Services. In the case of Sessions and Divisional Courts the most important change effected in the year was the transfer of the Thayetmyo District from the Bassein to the Prome Division. While the total receipts of the Courts remained at nearly the same figure as in 1906 (Rs. 28,96,979 as against Rs. 28,60,436), the charges increased from Rs. 45,12,073 to Rs. 50,21,945. The increase in expenditure is almost wholly accounted for by increases of Rs. 3,05,863 in the salaries of officers, cost of establishments, and contingent expenditure, and of Rs. 2,00,275 in charges connected with buildings. The balance of the increase was shared by all the smaller heads except that of stationery supplied from Calcutta. Courts.

89. The total number of suits filed in Lower Burma was 58,802 as against 63,622 in 1906 and 61,483 in 1905. Although the number thus showed a decided decrease as compared with the two previous years, it was still far higher than the numbers in 1904 and the preceding years, the highest figure reached before 1905 being 51,594 in 1904. The decrease was common to every important district of Lower Burma except Myaungmya and Ma-ubin. It is curious that at the same time the number of cases in every one of the six less important districts in the Arakan and Tenasserim Divisions increased. In Upper Burma the total number of institutions fell below that of the previous year by 1,406 suits (23,374 Volume and classification of litigation.

CHAP. III.—PROTECTION.

against 24,780). Claims for money or moveables formed the bulk of the decrease. While suits of nearly all other kinds declined in number there was an increase under mortgage suits in both sections of the Province. The decrease of work was most noticeable in the case of Township Courts. The aggregate value of suits showed a small increase from 225 to 228 lakhs. The rise is, however, more than accounted for by an expansion of over ten lakhs in the business of the Chief Court.

Disposal of cases.

90. The number of regular civil suits decided during 1907 was 82,814 as compared with 88,344 in 1906. Of these 21,373 against 22,006 were contested. At the close of the year 8,939 cases were pending, 21 less than at the end of 1906. The average duration of cases increased considerably. The result is attributed in Lower Burma to the issue of orders requiring mortgage suits to be kept pending until the final decree is passed, and in Upper Burma to the prevalence of plague and scarcity. There was some congestion of business in the Chief Court and in the Court of the Judicial Commissioner, Upper Burma. An additional Judge of the Chief Court was sanctioned for part of the year and an additional Judicial Commissioner has been appointed since the close of the year. Proposals for the constitution of a City Court in Rangoon are still under consideration. Miscellaneous cases, which in the subordinate Courts consist chiefly of applications for removal of attachment, and in District Courts of applications for probate and for succession certificates, rose in number from 11,682 to 11,722.

Execution of decrees.

91. The total number of applications for execution of decrees rose from 53,535 to 56,465; but the amount realised, nearly 27 lakhs, was only slightly in excess of the figure of 1906. The number of applications increased in both sections of the Province, but realizations declined somewhat in Lower Burma. Twenty-three thousand one hundred and thirty applications or 49 per cent. of the number disposed of were wholly infructuous as compared with 48 per cent. in 1906. Imprisonment of judgment-debtors was rather more frequent especially in Lower Burma and the property of the debtor was sold in practically the same number of cases as in the previous year.

Insolvency proceedings.

92. Six hundred and ninety applications were made to the Courts under the provisions of the Code of Civil Procedure relating to Insolvency as compared with 565 in 1906 and 409 in 1905. One hundred and thirty applications were pending at the end of the year. The amount of creditors' claims dealt with rose from 1·35 to 2·69 lakhs, but only Rs. 2,321 were realized from the assets of insolvents. The number of insolvents discharged increased by 16 to 80.

Appeals.

93. The number of regular appeals decided during the year was 4,813 or 586 more than in 1906. As in the case of original suits, the average duration of appeals was noticeably longer. In 3,047 cases the decree of the lower Court was confirmed, the percentage of confirmation being 63·31 as compared with a proportion of 62·55 per cent. in the year 1906.

Registration.

General.

94. The registration of deeds continued to be governed during the year 1907 by the provisions of the Indian Registration Act, 1877, in Lower Burma, and in Upper Burma by the Upper Burma Registration Regulation, 1897. Revised rules under section 8 of the Regulation were considered during the year and have been brought into force since its close. The number of Registration offices was increased from 146 to 148. The system of appointing pensioners or non-officials to be Joint Sub-Registrars was extended to ten offices. These Joint Sub-Registrars are remunerated by a fixed proportion of the monthly fees, the emoluments being usually limited to Rs. 720 per annum.

Deeds registered.

95. The total number of documents compulsorily registered in Lower Burma fell by 4,811 and the aggregate value by Rs. 91,94,847. The number of sales

affecting immoveable property of the value of Rs. 100 or upward rose by 708, but the value of the property involved declined. Under mortgages there was a sudden drop from 22,889 instruments valued at 365 lakhs to 16,730 instruments valued at 260 lakhs. The falling off is very generally attributed to the effect of the Financial Commissioner's Circular No. 4 of 1906, which prescribes measures for enforcing the prohibition of transfer of land in contravention of the conditions of the lease or grant under which it is held, and for resuming land occupied on a squatter's tenure when it has been transferred to a non-agriculturist. In Rangoon, the decrease is ascribed partly to the increasing resort to the practice of the acceptance as security of title deeds without a registered instrument, partly to the failure of some Chetty firms and partly to the greater frequency of transfers of mortgages. There was an increase from 7,830 to 8,718 in the number of compulsory registrations in Upper Burma, but the rise in value from 49 to 164 lakhs was out of all proportion. This abnormal expansion is accounted for by an increase in the value of sales exceeding Rs. 100 due to the transfer of the properties of the Burma Oil Company to the new Company of the same name, and to the large number of transfers of oil wells in the Yenangyaung oil field at the enhanced prices which have lately prevailed in consequence of the competition between rival Companies in that field. Mortgages registered in Upper Burma also showed a substantial increase in number and value. The number of entries in Book IV (Registrations affecting moveable property) fell off in Lower Burma and increased in Upper Burma ; but the aggregate value of transactions was greater in Lower Burma and much less in Upper Burma than in the previous year. CHAP. III.—PROTECTION.

96. The total income of the Registration Department for the year 1907 amounted to Rs. 1,96,119 or Rs. 16,968 less than in 1906, while expenditure rose from Rs. 74,161 to Rs. 80,157. Diminished fees on instruments of mortgage in Lower Burma mainly account for the decrease. The steady increase of expenditure from year to year is attributable to several causes of which the following may be enumerated :—increased payments to clerks remunerated by fees on documents, revision of establishments and salaries, the employment of extra temporary clerks for the purpose of working off arrears, the recurring entertainment on a fixed scale in several districts of temporary clerks during the busy season in order to keep registration up to date, and the appointment of whole-time Sub-Registrars remunerated by a fixed proportion of the fees subject to certain maxima. Income and expeniture.

Joint Stock Companies.

97. The number of Joint Stock Companies limited by capital divided into shares rose from 55 to 68. Eighteen new Companies were formed while five ceased to work. No new Company limited by guarantee was registered, the number of such Companies remaining at five. Number of Companies.

98. The aggregate nominal capital of all Companies rose from 246 to 337 lakhs, and the paid-up capital from 132 to 138 lakhs. Seventeen Companies increased their nominal and paid-up capital and one Company reduced its paid-up capital. Capital.

99. The fees realised during the year amounted to Rs. 5,383-8-0 as compared with Rs. 4,548 in the previous year. One prosecution was instituted in the Court of the District Magistrate, Mandalay, for non-compliance with the provisions of section 74 of the Indian Companies Act, 1882. General.

Local Boards Administration.

100. There are no Local Boards in Burma. The District Funds in Upper Burma and the District Cess Funds in Lower Burma are administered by the

CHAP. III.—PROTECTION.

Deputy Commissioners of the districts to which they belong. Some account of their receipts and expenditure is given in paragraph 190.

Municipal Administration.

Rangoon Municipality.

101. If account is taken of the fact that the receipts of the Rangoon Municipality for the year were swollen by the recovery of arrears of taxes on Government buildings for 1906-07, the margin of ordinary income over ordinary expenditure was small. Sanction was given during the year to an increase of the tax on bullock carts, and to the imposition of a tax on dogs. The former may be expected to bring in a slight addition to Municipal Funds; the latter is intended less as a source of income than as a measure by which the number of ownerless pariah dogs which infest the streets may be kept down. The proposal to impose a lodger's tax was not accepted by Government in view of the difficulty of collecting such a tax. The problem how to tax the large floating coolie population, whose presence in Rangoon is a constant source of difficulty and expense to the Municipality, and who could easily bear a light measure of taxation, still awaits solution. A serious effort was made by the Committee to deal with the question of improving the milk-supply. Bye-laws to regulate the sale of milk were framed during the year under review, and have since been sanctioned, and the Committee are about to establish an experimental model cow-keepers' village. Measures were also undertaken for the improvement of the condition of markets and bazaars. An equally important problem which has been before the Committee for many years, and of which it is desirable that a solution should be found at an early date is the housing question.

Minor Municipalities and their Committees.

102. The number of minor Municipalities in the year was 43, the same as in 1906-07. No change of importance was made during the year in the constitution of Municipal Committees. Of a total of 540 members, 63 were elected, 309 nominated, and 168 appointed *ex-officio*. The decrease of 8 in the number of elected members is due to the fact that at the general election at Henzada candidates came forward for only 4 out of 12 seats. The average attendance at meetings during the year was about the same as in 1906-07. Elected members sat on 8 Municipal Committees during the year. General elections were held at Prome, Yandoon and Henzada. There was no contest at Prome. At Henzada, as already stated, there were only four candidates for 12 seats.

Minor Municipalities; Taxation.

103. The average incidence of taxation rose from Rs. 1-11-2 to Rs. 1-15-7, and of income from Rs. 4-6-8 to Rs. 4-13-5. General taxation was lightest at Taungdwingyi, where the incidence was eight annas. The special assessor who was appointed at Moulmein in 1906-07 completed the general revision of assessment in the year under review with satisfactory results. Revisions were undertaken in some other towns, but they call for no special remarks. The number of new taxes imposed during the year was small. A scavenging tax was imposed in Pyinmana and Pakôkku. A similar tax in Toungoo was levied generally for the first time during the year. In Henzada the scavenging and latrine taxes were revised, and a new tax on day conservancy was imposed in Mergui. The land tax in Thatôn was extended to lands not covered by buildings.

Minor Municipalities: Public Health and Convenience.

104. The water-works at Akyab are not yet completed, but fair progress has been made, and Rs. 2,03,873 were spent during the year. It has been found impossible to complete the work from the loan of 3 lakhs, and since the close of the year a grant of Rs. 25,000 has been made to the Municipality out of the Imperial grant of three lakhs, and a further loan of Rs. 30,000 has been applied for. No final proposals have yet been submitted for a satisfactory water-supply in Mandalay, and it has not been decided which of the alternative schemes is the most feasible and the most likely to succeed. The Municipality is still heavily handicapped by expenditure on measures for the prevention and suppression

of plague, and financial considerations must of necessity be taken into account in the working out of any scheme. The proposals made in the previous year for a water-supply at Mônywa were not approved by the Sanitary Engineer, and fresh proposals are under consideration. A further attempt to sink a tube-well at Gyobingauk has proved unsuccessful, and it is now proposed to expend Rs. 10,000 on the construction of a tank. Similar failures have been experienced at Letpadan and Kyaiklat. A beginning has been made in the construction of tanks and pumps for the supply of drinking water in Pyinmana, but no progress has yet been made at Minbu. The Pyapôn Municipality are considering the question of constructing a large tank at an estimated cost of Rs. 70,000. In Bassein a comprehensive scheme of water-supply is under consideration. In Pakôkku, part of a loan of Rs. 25,000 from Government was spent in the construction of three new wells. No large sanitary works were undertaken during the year, and it is in connection with plague that most of the improvements of a sanitary nature have been effected. In Moulmein a large plague staff was entertained and much was done in the way of cleaning and disinfecting the most insanitary quarters. But it has been found impossible as yet for financial reasons to commence any general scheme for the removal of insanitary houses. Little progress was made with the Kyaiklat conservancy scheme, which was not approved by the Sanitary Board. In Pyapôn a start has been made in the construction of sluices and in the reclamation of parts of the town. The balance of the grant of Rs. 30,000 which was made to Akyab in the previous year for the improvement of the civil station has now been spent, and the sanitary condition of the station is reported to be much improved. Regular systems of night conservancy were introduced during the year in Pyinmana, Yamèthin and Pakôkku. The loan of Rs. 80,000 applied for by the Henzada Municipal Committee was sanctioned during the year, and a start made in the equipment of a conservancy scheme on the tram-line system.

Military.

Strength of the garrison.

105. The total strength of the troops forming the Burma garrison at the end of March 1908 was 10,354 officers and men, of whom 4,190 were Europeans.

Military works.

106. The expenditure on military works during the year fell from 14·05 to 12·15 lakhs, but the latter figure still exceeded the average outlay of recent years. A number of military works of some importance were completed or in progress at Maymyo. The primary and subsidiary buildings included in the scheme for accommodating a full Battalion of British Infantry commenced in 1905-06, were brought to completion and progress was made with the auxiliary buildings. Rupees 2,80,352 were spent during the year, bringing the total expenditure up to Rs. 7,41,795 against the sanctioned estimate of Rs. 9,06,604. The project for providing quarters with out-houses for the Regimental and Medical Officers of a Battalion of British Infantry was completed at a total cost of Rs. 1,75,135, of which Rs. 22,795 were expended during the year. The construction of lines for a Battery of Native Mountain Artillery was completed, except for hospital accommodation, at a cost of Rs. 1,92,122, of which expenditure amounting to Rs. 31,214 was incurred. The project for constructing lines for the native personnel (143 single and 22 married men) of the 25th Mule Corps was completed for Rs. 28,923 of which Rs. 19,278 were spent during the year. The work of providing a piped water-supply for the British Infantry Cantonment at a total cost of Rs. 88,035 was completed during the year. The provision of a permanent piped water-supply from a tube well for the Mandalay Garrison was in progress, a reservoir on Mandalay Hill was constructed and pipes were laid. A piped water-supply was also provided for the North Transport Lines, Mandalay. Besides the projects mentioned, minor works were taken in hand at the various stations where troops are quartered.

Military (Volunteering).

CHAP. III.—PROTECTION.

107. There were six Volunteer Corps in Burma during the year of report: three of these, the Port Defence, the Rangoon Volunteer Rifles and the Burma Railways Corps, have their headquarters in Rangoon; the Moulmein Volunteer Rifles and Artillery have their headquarters at Moulmein, and the Upper Burma Volunteer Rifles at Mandalay. The total strength of the six corps as shown by the rolls at the close of March 1908 was 2,644 adults, 390 cadets and 127 reservists, exceeding the figures of the previous year by 277 men. With 2,902 efficients exclusive of the reservists against 2,629 in 1906-07, the Corps taken together earned in capitation and other grants Rs. 1,15,677 or Rs. 10,405 more than in 1906-07. These figures do not include the 42 members of the South Andaman Rifle Corps, which for administrative purposes is attached to the Rangoon Volunteer Rifle Corps and earned in grants Rs. 1,508.

Marine.

Light-houses and Light-ships.

108. The cost of maintenance of the nine light-houses, the new light at Zallataung Island, the light-house tender *Victoria* which took the place of the *Ruby*, and the four light-ships stationed off the Coast of Burma during the year ending the 31st March 1908, rose by Rs. 20,144 to Rs. 1,75,439, the increase being due principally to larger expenditure on establishment, provisions, blue-light composition and repairs. Receipts from light-dues fell again by Rs. 33,024 to roughly 4¼ lakhs. There were fewer cases of beri-beri amongst the light-house staff and none of them proved fatal. Monthly visits to the light-houses and light-ships were carried out by the Royal Indian Marine Steamers *Dalhousie* and *Minto*. Detailed projects for effecting improvements to all the light-houses, excepting those at China Bakir and Reef Island, were disposed of during the year. The material and plant required for Eastern Grove Light-house were received and work put in hand before the close of the year, while that for Oyster Island Light-house was also received, but too late for work to be put in hand. A 93-day unattended Wigham light has been erected on a steel lattice beacon, built locally, to the west end of Zallataung Island as an anchorage light for vessels calling off the mouth of the Sandoway River: the light is a fixed red one with a range of about six miles, and was first exhibited on the 20th October 1907. The new cast-iron light-house for Beacon Island was ordered and is under construction in England; certain preliminary works have been taken in hand. Besides the works mentioned numerous petty improvements were carried out at the various light-stations.

Port Administration, Rangoon.

109. The income of the Rangoon Port Trust, including debt accounts, was Rs. 32,05,176 against Rs. 26,03,314 in the previous year, there being an increase in ordinary revenue under most heads. The Botataung estate, acquired in February 1907, brought an increase to the revenues of over Rs. 70,000, and the proceeds of the river due amounted to Rs. 1,96,138. The expenditure including debt accounts and works financed out of surplus revenue, rose from Rs. 26,03,476 to Rs. 38,76,266. The revenue expenditure exhibited an increase of Rs. 2,86,481 as compared with 1906-07 which was mainly due to increase of establishments, opening of the Latter street wharf extension, increase of pay granted to the Assistant Harbour Masters from the 1st April 1907, and an increase in interest and sinking fund charges owing to the raising of further loans. The estimated capital expenditure during the year was Rs. 32,35,499 and the actual expenditure Rs. 22,57,205, the saving being due to the postponement of the fixed mooring scheme and of the construction of the tug and fire-float. The year closed with a balance of Rs. 3,66,069. During the year the Port Commissioners raised two loans, one of Rs. 16,31,000 and another of Rs. 7,51,000. For the former loan the average price was Rs. 93-14-7 and Rs. 93-9-2 for the latter loan. The total debt at the close of the year amounted to Rs. 1,32,12,000. The Port Commissioners finding that the prospects of raising a large loan in India during

1908 at a better rate than that obtained in 1907 were unfavourable, opened negotiations in February 1908 with their London Agents with a view to placing a loan of £500,000 on the London market early in the year. The price of the loan was to be 95 per cent., but it has been floated since the close of the year at a lower rate. Perhaps the most important feature of the year's administration was the imposition with effect from the 1st September 1907, of a river due of 1½ annas a ton on the import and export trade. This measure which has been the subject of anxious consideration for some years was introduced without serious opposition. Receipts from this source during the year amounted to nearly two lakhs. From the 1st August 1907 a share of the cost of the Port Police was debited to Government resulting in a saving of Rs. 23,000 by the Port Trust. Steps were taken to regularize the position with respect to private wharves and jetties and to safeguard the legitimate revenues of the Port in respect of the inland trade. It was estimated that a sum of Rs. 17,51,083 would be spent upon the wharf extension works during the year. The actual expenditure was Rs. 16,49,484 bringing up the total expenditure since the commencement of the works to Rs. 82,54,519. The estimates originally sanctioned for the works amounted to 89 lakhs, but during the progress of the works it has been found necessary to deviate considerably from the sanctioned plans. Revised estimates amounting to Rs. 1,04,35,866 have been sanctioned since the close of the year. The scheme for laying down fixed moorings which is estimated to cost Rs. 9,05,695 was sanctioned after the close of the year under review. The scheme for training the Rangoon River was still under discussion during the year, but no final conclusion as to the manner in which the training wall connected with the scheme was to be constructed had been arrived at. The Port Commissioners have approved of a project for improving the channel across the Hastings Shoal. During the year the piece of land known as Mower's Point which is required in connection with the training scheme was bought by the Commissioners for something under seven lakhs. CHAP. III.—PROTECTION.

110. The 21 pilots of the Port of Rangoon earned for the Pilot Fund Rs. 2,85,735 an increase of Rs. 3,312 over the receipts of the previous year. The amount disbursed to the pilots was Rs. 1,89,222 or Rs. 1,238 more. An addition of Rs. 5,000 brought the Depreciation Fund up to Rs. 26,500, while the closing balance of the Pilot Fund on the 31st March 1908 was Rs. 64,401. Four of the 21 pilots were special pilots, not available for general duty. They were the Commanders of the British Indian Steam Navigation Company's steamers plying between Rangoon, Moulmein and Mergui, and of the Port Trust tug *Hlaing*. Proposals were put forward during the year for giving the Port Commissioners greater control over Pilots and for introducing a scale of fixed pay. The management of the Harbour Masters' Department was also overhauled and the pay of Assistant Harbour Masters was raised. Pilot Service, Rangoon.

111. Receipts during the year 1907-08 of the six minor ports for which separate Port Funds are maintained rose from Rs. 3,31,449 to Rs. 3,77,378, while the expenditure declined by Rs. 40,651 to Rs. 3,28,294. Port Officers appointed by Government continued to manage the ports of Moulmein, Akyab and Bassein where there are special pilot services consisting of eight, one and four pilots respectively, two of the eight at Moulmein being the commanders of the British Indian Steam Navigation Company's steamers which ply thrice a week between that port and Rangoon. The receipts of the Pilot Funds at the three ports, Rs. 98,180, exceeded the expenditure by Rs. 7,133, and the closing balance rose from Rs. 19,944 to Rs. 27,077. The administration of the three remaining ports of Mergui, Tavoy and Kyaukpyu, none of which has a Pilot Fund, is in the hands of the Deputy Commissioners of the districts bearing these names. Minor Ports.

112. Four hundred and thirty-eight steamers and 86 sailing vessels arrived in Burma from foreign countries during the year 1907-08. Both the number of arrivals and the total tonnage, 983,588 tons, declined as compared with the figures Commercial Marine.

CHAP. III.—PROTECTION.

of the previous year. Of these vessels, 320 steamers and 5 sailing ships, with a tonnage of 770,905 tons arrived at Rangoon, the same comment being applicable to the figures. There was again a substantial advance in the coasting trade of the Province. The number of arrivals of steamers and sailing vessels rose from 3,382 to 3,646, and the tonnage also increased from 2,529,170 to 2,722,781 tons. One thousand and eighty-four or slightly more than half the steamers were bound for Rangoon, while only 154 sailing ships as against 187 in 1906-07 had a like destination. Of the tonnage, Rangoon accounted for 1·81 million tons, practically the same figure as in the previous year. The number of steamers of above 4,000 tons which entered the Port of Rangoon fell from 416 to 391, and the figures of the various classes of steamers when compared with those for previous years indicate that a certain amount of trade depression existed during the year. Two hundred and thirty vessels sailed under a foreign flag as against 273 in the previous year, the colours of Norway, Germany, Japan, Austria-Hungary and Holland being most prominent. There was a general falling off of vessels belonging to each foreign nation except that vessels hailing from Japan increased from 31 to 45.

Commercial Marine:—Wrecks and Casualties.

113. On the afternoon of the 23rd February 1908, the S. S. *Ivydene* of Newcastle, register tonnage 2,277, stranded on Oyster Reef in the vicinity of Akyab. Altogether during the year, in the Rangoon harbour, there were 23 accidents to vessels in charge of Assistant Harbour Masters or Pilots. In connection with these accidents 4 Courts of Enquiry were held; one Pilot and 2 Assistant Harbour Masters were acquitted of blame, and one Assistant Harbour Master was warned to be more careful in future.

Government Steamers and Launches.

114. The three Royal Indian Marine vessels *Irrawady*, *Sladen* and *Bhamo* carried by river over sixteen thousand troops and followers, with ammunition, horses and cattle, besides 8,735 tons of stores and 95¼ lakhs of specie. Their earnings rose by Rs. 52,355 to Rs. 3,35,830 owing to the vessels being more fully employed than in the previous year. Six new vessels were added to the Government flotilla, four were sold, while the Schooner *Victoria* has now become the light-house tender, leaving at the end of the year 98 vessels of all descriptions, including 9 house-boats, 9 flats, 3 cutters and 1 barge. The stern-wheel steamer *Mogaung* which struck a snag and sank above Thaungdut on the 5th March 1908 was successfully raised. All the vessels were fully employed throughout the year. The total expenditure on the up-keep of these vessels, including 4 *per cent.* interest on the balance of their cost, was Rs. 6,84,189, while they earned Rs. 4,75,908. Nineteen launches earned more than the cost of their up-keep, the profit on the working of four paddlers in Upper Burma amounting to Rs. 68,480. Four launches are under construction.

Marine Works and Surveys.

115. A screw pile wharf for the Civil Station of Pyapôn was completed, also one for landing prisoners at Wakèma. Further improvements to facilitate navigation along the Southern Tenasserim Coast were undertaken during the year: a mast-head light at Victoria Point, leading marks at Bôkpyin, and beacons on dangerous rocks in the Mergui Archipelago were completed, and work commenced on a Port Light at Sinbyubin. Surveys were made and levels taken of all the dangerous landings at the light-houses at Alguada Reef, Green Island, Double Island and Table Island with a view to improvements being carried out. Extensive repairs to the Oyster Island jetty were undertaken. The construction of a boat grid and a screw pile jetty 180 feet long at the Public Works Department Light-house Yard, Rangoon, were commenced. The survey of the Bassein Creek was completed during the year and the survey sheets have been printed. The harbour and the Rangoon River from Elephant Point to the Fairway buoy were re-surveyed and fresh charts printed. The various important channels in the river were periodically examined and charts showing the changes were regularly supplied to the Pilot service. Slight changes are reported in the

Western Channel, the Middle Bank Channel, and on the D'Silva Shoal and Choki Lumps. The channels across the Hastings and the Monkey Point Channel still give cause for anxiety, as the changes in those localities are frequent and rapid. A special Survey staff is now permanently employed in observing and noting the changes. The channels are reported to show no deterioration when compared with the previous year's observations. The new Royal Indian Marine steamer *Investigator* was engaged during the year in continuing the survey of the Arakan Coast from Baronges to Ramree and from the Nerbudda Shoal to Gwa. The season's programme will complete the survey of the Arakan Coast from Cox Bazaar to Gwa leaving only another 90 miles north of Cape Negrais.

CHAP. III.—PROTECTION.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

REFERENCES:—

Season and Crop Report of Burma for the year ending the 30th June 1908.

Report of the Civil Veterinary Department, Burma, for the year 1907-08.

Land Revenue Administration Report of Burma for the year ending the 30th June 1908.

Report on the working of the Co-operative Credit Societies Act in Burma for the year ending the 30th June 1908.

Report of the Public Works Department, Burma (Irrigation), for the year 1907-08.

Report on the operations of the Department of Agriculture, Burma, for the year ending the 30th June 1908.

Report of the Agri-Horticultural Society of Burma for the year 1907.

Report on the Forest Administration of Burma for the year ending the 30th June 1908.

Report on the Census of Burma, 1901.

Resolution on the Reports on the working of the Indian Factories Act in Lower Burma for the year 1907.

Report on the Maritime Trade and Customs Administration of Burma for the year 1907-08.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the year 1907-08, Part I, Foreign Trade, and Part II, Coasting Trade.

Report on the Transfrontier Trade of Burma during the year 1907-08 and the triennial period ending the 31st March 1908.

Report of the Commissioners for the Port of Rangoon for the year 1907-08.

Report of the Public Works Department, Burma (Buildings and Roads Branch), for the year 1907-08.

Twenty-fourth issue of the Agricultural Statistics of India for the years 1903-04 to 1907-08, Volume I, Tables I to V, A and B.

Second issue of the Statistics of British India for 1907-08 and preceding years.

Forty-second issue of the Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries in the year ending the 31st March 1908, and the four preceding years, Volume I, Tables 9 to 11, and Volume II, Tables 5 and 6 and 18 to 21.

Forty-second issue of the Annual Statement of the Coasting Trade and Navigation of British India for the year ending the 31st March 1908, Tables 3 to 12.

Agriculture.

Agricultural stock and cattle disease.

116. The annual returns of agricultural stock show improvement under all heads of importance except that the number of buffalo calves has declined. There were altogether in the Province on the 30th June 1908 nearly 1⅞ million bulls and bullocks, over 1¼ million cows, ¾ million buffaloes with 330,000 calves, 29,500 sheep, 151,000 goats, 60,000 horses and ponies and 1,800 mules. It is reported that buffaloes are being steadily replaced by bullocks in most districts. In the dry zone of Upper Burma buffaloes are little used. In certain Upper Burma districts diminution of stock is attributed to the bad season. The reduction is mainly due to the export of cattle for sale in Lower Burma, but is also partly accounted for by the loss of weakly animals through scarcity of fodder and water. The year was a healthy one for cattle and there were few serious epidemics. The number of deaths from contagious disease fell from 40,715 to 24,316. The improvement was mainly due to a reduction of the mortality from rinderpest from 33,106 to 16,390 deaths. Foot-and-mouth disease was somewhat more prevalent and anthrax less prevalent than in the previous year. The worst outbreak of rinderpest took place in the Amherst District. Anthrax was prevalent in Akyab and foot-and-mouth disease in Sagaing.

Pony and cattle breeding.

117. The Government stallion at Lashio in the Northern Shan States had to be destroyed as he had become old and useless. The stallion standing at Thamakan in the Southern Shan States seems to be scarcely a success, but better accounts are given of the two Deli ponies stationed at Tharrawaddy. Altogether 93 mares were covered by Government stallions as compared with 115 in the year 1906-07.

There are no Government bulls at stud in Burma and the only direct encouragement given by Government to cattle-breeders is by the holding of agricultural shows at which prizes and medals are given for the best cattle in each class. The combined fair and cattle show at Bhamo on the 28th and 29th March 1908 was the only one held during the year. Buffaloes were a good class, but oxen were only moderate and the ponies were a poor lot. Arrangements are being made for the conduct on systematic lines of Agricultural and Live Stock shows by the new Department of Agriculture.

Prices.

118. The price of paddy was everywhere much above normal except in the Salween, Bhamo, Myitkyina and Ruby Mines Districts. In Lower Burma exceptionally high prices were paid for the paddy required for the export market. In Upper Burma high prices ruled, partly in sympathy with the export market, but more especially because of the extensive failures of crops in unirrigated areas. The recorded prices of all other crops are also greatly above normal. The only exceptions to this are the prices for maize and gram in Ma-ubin, sessamum in Ma-ubin, Myaungmya, Myitkyina and the Ruby Mines, *pègyi* (white beans) in Ma-ubin and Pakôkku, *pègya* (red beans) in Pakôkku and Mandalay, *pèyin* in Pakôkku, groundnuts in Sandoway, Lower Chindwin and Ma-ubin, tobacco in Ma-ubin, Amherst and Pakôkku, and uncleaned cotton in Salin, where the prices were normal or below normal. In Akyab the amount of paddy available for export was estimated at 287 lakhs of baskets or 35 lakhs more than in the previous year. In Sandoway, Pyapôn, Bassein, Henzada, Thatôn and the Upper Chindwin, the cultivators oversold owing to the high prices obtainable. In Amherst the total amount of paddy brought to Moulmein by the close of the first week of April 1908 was 184,400 tons approximately, or 10,000 tons more than in 1906-07. The average price of paddy in Lower Burma was about Rs. 2-4-0 per maund, and in Upper Burma varied at the more important centres from Re. 1-11-0 to Rs. 2-11-0. The price of wheat varied from Rs. 2-8-3 in Mônywa to Rs. 4-8-0 in Shwebo. *Pyaung* (millet, *jowar*) varied from Re. 1-8-0 in the Yamèthin District to Rs. 3-12-0 in Shwebo. Maize in Lower Burma varied from Rs. 2-9-0 in Shwedaung (Prome) to Rs. 4-15-8 in Yandoon and Ma-ubin, and in Upper Burma from annas 8 in Pakôkku to Rs. 2-8-0 in Shwebo. The price of gram in Lower Burma varied from Rs. 3-2-0 in Zalun (Henzada) to Rs. 4-8-0 in Shwedaung (Prome), and in Upper Burma from Rs. 2-3-0 in Pyawbwè (Yamèthin) to Rs. 4-10-9 in Sagu (Minbu). Sessamum in Lower Burma cost Rs. 4 per maund in Sandoway and Rs. 9-5-0 in Moulmein. In Upper Burma the price varied from Rs. 3-14-0 in Mogôk (Ruby Mines) and Rs. 4-8-0 in Shwebo to Rs. 9-2-3 in Bhamo. The price of *pègyi* (white beans) varied from Rs. 3-13-7 in Danubyu (Ma-ubin) and Rs. 2-4-0 in Pakôkku to Rs. 7-8-0 in Paungdè (Prome) and Rs. 5-2-3 in Sagu (Minbu). The price of *pègya* (red beans) averaged about Rs. 2 and *pèyin* (variety of beans) a little less. Groundnut varied from Re. 1-9-3 in Mônywa (Lower Chindwin) to Rs. 2-14-0 in Pakôkku, but no prices are quoted for Magwe. Tobacco varied from Rs. 4-8-0 in Zalun (Henzada) to Rs. 28 in Sandoway, and in Upper Burma from Rs. 4-8-0 in Salin (Minbu) to Rs. 15 in Myitkyina. The price of uncleaned cotton varied from Rs. 4 to Rs. 5-10-2, with the exception of Sandoway where it rose to Rs. 11-4-0; cleaned cotton ruled from Rs. 7-3-5 to Rs. 18-5-0. In Sandoway cotton is an unimportant crop.

Agricultural loans.

119. At the commencement of the year there were outstandings of agricultural advances amounting to Rs. 7,45,595, an increase of nearly 47 per cent. on the figure at the commencement of the previous year, which was itself an advance of 30 per cent. on the figure for 1905-06. During the year advances were made to the extent of Rs. 9,73,968, an increase of 14 per cent. on the figures for 1906-07, which were an increase of 27 per cent. on those of 1905-06. Remissions amounted to Rs. 2,638 principal and Rs. 171 interest: in the previous year there were none. Collections during the year showed an increase of 15·61 per cent. over those of the previous year and with remissions amounted to 96·47 per cent. of the outstandings at the end of the previous year. The amount suspended

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

during the year was Rs. 2,38,203 or about four times the amount suspended during the previous year. The amount overdue at the end of the year was Rs. 1,35,974, a decrease of 18·76 per cent. on the previous year. This result has, however, been obtained only by suspending two-thirds of the amount overdue in Hanthawaddy, where in the previous year no suspensions were made. The amount of interest collected during the year was Rs. 68,572, an increase of 42·64 per cent. on the previous year. Remissions and suspensions amounted to Rs. 171 and Rs. 2,023, respectively, as compared with Rs. *nil* and Rs. 451 in the previous year. The balance overdue at the end of the year was Rs. 7,161, a decrease of 25·03 per cent. Loans under the Land Improvement Loans Act were made to the extent of Rs. 27,300 during the year compared with Rs. 3,250 in the previous year.

Co-operative Credit Societies.

120. The number of Co-operative Credit Societies increased from 40 to 81 during the year of report, and there has been a further increase since the close of the year. There was also a satisfactory increase in the number of members and in the transactions of the Societies. The majority of the Societies are rural Societies of the Raiffeisen type. A new form of Society on the model of the Punjab adaptation of the Luzatti class of Societies was constituted. The idea of this Society, it is understood, was worked out by a Burman Honorary Organizer, Maung Bya, who has since been appointed to the paid staff of the Registrar. Although it is desirable that the energies of the Registrar and his assistants should be devoted more particularly to the formation of Rural Societies and the spread and development of the Co-operative idea among the rural population, the appearance of Urban Societies is also welcome. A substantial increase to the strength of the supervising staff is contemplated by the Registrar. Some increase of staff is probably justifiable, but it is doubtful whether it will be possible for Government to provide a staff of Registrars, with the necessary qualifications and of sufficient strength to maintain for an indefinite time the close supervision which is recognized as essential in the infancy and childhood of the movement. By degrees the Societies must learn to manage their own affairs and be responsible for their own stability. No doubt this result will not be attained for some years to come. In the meantime, the Financial Commissioner and Registrar have been asked to consider whether the close control of Societies and the audit of their accounts could not be entrusted to some extent in Upper Burma at any rate to Subdivisional Officers.

Protection from floods.

121. The construction and maintenance of artificial bunds along the banks of the Irrawaddy River in Lower Burma form an important part of the irrigation work of the Public Works Department in this Province. Embankments maintained by the department exist also in the Pegu and Ma-ubin Districts. The capital outlay on the Irrawaddy and Thôngwa Island embankments for which alone capital accounts are maintained amounted at the end of the year to 35·14 lakhs. In the whole Province no less an area than 619,760 acres of cultivation, 5,000 acres more than in 1906-07, were protected by embankments. The receipts representing the total amount of land revenue assessed on the area protected rose from 17·22 to 18·64 lakhs. Working expenses came to 4·82 lakhs, the increase roughly of half a lakh being due to larger expenditure incurred in bringing up to safety level the Henzada and Ngawun section of the Irrawaddy embankments. The net revenue from all embankments aggregated 13·82 lakhs, nearly a lakh in excess of the figure of the previous year.

Area irrigated.

122. The area irrigated by Government canals rose from 290,576 to 348,239 acres, but the area watered by private canals shows a reduction from 189,658 acres to 177,004 acres. The area irrigated from wells fell from 11,424 to 9,320 acres. The area irrigated from tanks increased from 99,660 to 105,683 acres and from "other sources" from 142,444 to 208,374 acres. The result is that the total area irrigated from all sources has increased from 733,762 to 848,620 acres. The principal Government canals are in the Minbu, Mandalay, Shwebo and Kyauksè Districts. The slight increases under this head in Minbu and

Kyauksè call for no comment. In Mandalay there were increases of 7,330 and 1,877 acres in the area irrigated by the Mandalay and Shwetachaung canals respectively. The area watered by the minor systems increased by 91 acres. The Shwebo Government canals watered an area of 43,416 acres in excess of the figure of the previous year owing to the further development of the Shwebo canal. The districts in which private canals show the largest areas are Magwe, Katha, Pakôkku and Minbu. In Yamèthin the irrigated area decreased from 55,257 acres to 9,299 acres only (but as the area irrigated from "other sources" rose from 8,566 acres to 51,684 acres, the difference is obviously due to reclassification). In Magwe and Katha also there were increases under this head. The area irrigated from tanks decreased in Meiktila and increased in Yamèthin. Irrigation from wells is almost entirely confined to betel-vine cultivation and the average area irrigated per well is less than one acre.

Weather and Crops.

Character of the Seasons.

123. The rainfall in Lower Burma was on the whole sufficient and timely, and the rice crop, owing to extended area, was above normal. The early rains were very favourable and a bumper crop was expected; but there were breaks in the latter rains, and these breaks, coupled with untimely falls at the time of harvest, caused the crop to give a somewhat poorer yield than was anticipated. The final estimate of the Lower Burma winter rice crop was 96 per cent. of the normal. In Upper Burma the rains were poor and untimely; the rise of the Irrawaddy and Chindwin rivers was abnormally small, and irrigation works gave short supplies of water in many cases. The agricultural season throughout the dry zone, except in Magwe, was a wretched one; probably the worst since 1896, and in some districts worse even than in that year. The area on which crops failed to mature was nearly double that of 1906-07: and where unirrigated crops did mature, the outturns were generally poor. In irrigated areas the deficient rainfall and hot sun somewhat shortened outturns; but the new irrigation systems of Mandalay and Shwebo proved immensely valuable. All the dry districts surrounding the irrigated areas drew on them to a much greater extent than usual for their food supplies. Conditions would have been serious in some of these districts had the areas protected by the irrigation works under Government control not been able to meet their demands for food supplies.

Area under cultivation.

124. The occupied area stood at 16,405,284 acres, practically the same as in the previous year. Minor decreases in occupied area are reported in Hanthawaddy, Ma-ubin, Thayetmyo and Pakôkku. In Shwebo the large reduction of 183,196 acres is not real. It is mostly due to the fact that the previous figures were partly estimates which have proved excessive, now that correct returns for the whole district are available for the first time. The occupied area is divided nearly equally between Lower and Upper Burma, but while there are only some 600,000 acres of fallow in Lower Burma, the fallow area of Upper Burma amounts to over three million acres. The fallow area decreased from 3,842,904 acres in 1906-07 to 3,663,390 acres in the year of report. The decrease is mostly due to the correction of the Shwebo figures already mentioned. The area on which crops failed to mature was 1,631,067 acres, an increase of 659,450 acres over last year's non-matured area of 971,617 acres. The increase in crop failures was entirely in Upper Burma and marks the wretched agricultural season of the dry zone.

Cropped area.

125. The total area cropped was 12,741,894 acres against 12,566,444 acres in 1906-07. In Lower Burma there was an increase in the cropped area of every district except Northern Arakan, Rangoon Town, Hanthawaddy, Ma-ubin and Pyapôn. The increase was due to the natural expansion of the area under rice cultivation. In Upper Burma the most notable variations were an increase of 83,000 acres in Magwe, an increase of 25,000 acres in Myingyan, a decrease of

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

25,000 acres in Minbu, and a decrease of 38,000 acres in Sagaing. The area under wheat decreased from 32,331 acres to 21,088 acres; every wheat growing district except Pakôkku contributing to the decrease. Jowar, bajra and maize show increases of 47,991, 16,364 and 7,151 acres, respectively, owing partly to these crops having been sown on rice and wheat lands, and partly to the area last year having been less than normal. The area under gram decreased by 20,032 acres. Sessamum shows an increase of 28,369 acres, due to an increase of 27,263 acres in the Lower Chindwin District where the area is 38 per cent. above normal. The area under groundnuts increased from 78,743 to 142,051 acres.

Area under various crops.

126. In Lower Burma the all important crop is winter rice to which the greater portion of the cultivated area is devoted. In Upper Burma rice takes a secondary place in most districts. Speaking generally, the winter rice crop of Lower Burma gave in 1907-08 an acre outturn only slightly below normal, and a total outturn considerably above normal. A rice forecast was as usual prepared for the fifteen principal rice producing districts of Lower Burma. This forecast estimated the acre outturn at 96 per cent. of the normal, and placed the surplus available for export at 2,486,000 tons of cargo rice against 2,345,500 tons in the previous year. The total exports to the end of June were 1,935,926 tons as compared with 1,804,290 tons to the end of June 1907. In Upper Burma the short and capricious rainfall produced poor crops with acre outturns much below normal, while the reduced areas bearing matured crops helped to reduce the district outturns. In Minbu alone the reports show estimated outturns generally above the normal, and the explanation given is that this is "due to the good luck of the selected fields in getting rain." It is therefore obvious that these outturns are not typical, and there is no doubt that Minbu, like other dry zone districts, had poor crops. Wheat and gram are said to have given better acre outturns than usual in Shwebo. The total area under cotton cultivation in the Province was 204,103 acres, a figure 14 per cent. in excess of the acreage of 1906-07. Cotton gave better outturns than usual in Minbu and Magwe, but in the other cotton producing districts the acre outturns were considerably below normal. The outturn of cleaned cotton for the year, according to the final forecast of the cotton crop for the principal cotton producing districts, amounted to 28,016 bales of 400 pounds each, against 35,636 bales in 1906-07. Proposals for the preparation of forecasts of the groundnut crop are under consideration.

Experimental cultivation.

127. The College Agricultural Station at Mandalay was fully worked during the year under report under the management of the Principal. At Hmawbi a few experiments in cold-weather cultivation were undertaken by the Deputy Director. Both stations were visited during the year by the Financial Commissioner. In August the site for the dry zone farm at Meiktila was selected by the Director in consultation with the Executive Engineer (Irrigation), but it is not proposed to start operations there till 1910. A site for *taungya* experiments near Maymyo has not yet been selected nor is there as yet any assistant sufficiently trained to supervise such experiments. The Hmawbi farm, with the exception of a small area, was leased out to cultivators. On the area reserved a series of tentative experiments were conducted to ascertain whether the paddy soils of Lower Burma can be made to produce, economically, a crop during the winter season. In this first attempt it cannot be said that any measure of success was attained. Wheat failed totally, and it seems improbable that any attempts to grow it on ordinary Lower Burma lands will be successful. The various peas and beans, with gram, gave the most promise of success, but the question of cost of cultivation, on a commercial scale, will have to be worked out before their cultivation can be recommended to the ordinary cultivator. Jute and sunn hemp were not successful, and their cultivation in the cold weather without irrigation seems hopeless. Jowar and maize also failed. The results with Egyptian cotton—Abassi and Afifi—were remarkable. The growth was quite good though the plants were rather small, but the crop was ruined by the early rains in 1908. The results obtained have served to indicate

fresh lines of experiment, and certain conclusions have been more or less firmly established. These are:—

(1) that wheat will not grow on paddy land;

(2) that, for the other crops, monthly sowings of small plots should be made throughout the year to ascertain the correct time for sowing each crop. Cotton, jute and sunn hemp and the various peas and beans may succeed, if sown at the right time;

(3) that the effect of green manuring on the stiff texture of the soil is a most important line of experiment.

In addition to these experiments the laying out of the experimental part of the farm was commenced. On a representation by the Burma Chamber of Commerce that the quality of Arakan rice was becoming more and more unsuited to the demands of the European market on account of its exceptional susceptibility to the absorption of moisture, the Director of Agriculture was requested by the Local Government to take steps to procure seed of suitable "moisture resisting" varieties, and to distribute it to cultivators in the Akyab District who were willing to grow it. After enquiries, selected seed was brought over from Moulmein and distributed. Both cultivators and millers are satisfied with the result, and, so far as can be judged, the experiment promises to be a success. An attempt was made to grow wheat and gram on flooded land in the Ma-ubin District, but no success was achieved. In order to induce the Chins to adopt a less wasteful system of cultivation, arrangements were made for the entertainment of two Angame Nagas to demonstrate the growing of rice on terraced land irrigated from the hill streams. So far progress, though slow, has been encouraging; but it is considered that this experiment should be secondary to the development of wheat cultivation in the Hills. Efforts to develop the cultivation of groundnuts in the dry zone of Upper Burma were continued and the outturn of this crop was nearly double that of the previous year. The presence of *tikka* disease has been discovered and experiments were undertaken with a view to counteracting its effects. The shortage of the Burma wheat crop and the failure of experiments in wheat cultivation in the Shan State of Kĕngtŭng attracted the attention of the Department, but no great extension of the area under wheat is reported except in the Chin Hills, where the requirements of the Military Police ensure a permanent local demand. Barley promises well in the Chin Hills; tea and coffee have been fairly successful, especially in districts in the northern wet zone. As usual a large number of small distributions of particular seeds was made to various districts, but none of the results are of sufficient general interest or on such a scale as to require detailed comment. A number of Cultivators' Leaflets were issued during the year and the interest aroused by them exceeded all expectations.

Horticulture.

Agri-Horticultural Societies.

128. The Agri-Horticultural Society of Burma in Rangoon and the Tenasserim Agri-Horticultural Society in Moulmein continued in existence during the year, but no report of the work of the latter Society has been published, and it is stated that steps will shortly be taken either to wind it up or to reconstruct it. The report of the Rangoon Society shows a satisfactory state of affairs, and the Society had a balance in hand at the end of the year of over Rs. 16,000. The laying out of the grounds of the garden has been continued according to the plans adopted in previous years. The planting of various fruit and ornamental trees has been carried out systematically, and many new varieties of ornamental plants have been obtained from Europe. The water-supply system and pipes throughout the garden have been completed, and as soon as the Municipality are able to begin the supply of water, this will greatly facilitate work and be beneficial to plants and trees in the garden.

CHAP. IV.—PRODUCTION AND DISTRIBUTION. Experimental gardens.

129. The result of the inspection of the Government experimental gardens by officers of the Agricultural Department is that the Sima garden has been closed on the recommendation of the Deputy Commissioner: the Katha garden has been taken over by the Department of Agriculture and is being managed under the direct orders of the Principal of the College: proposals have been submitted for a change in the scheme of the Sinlumkaba garden, and the Myitkyina garden has been retained for a few years more. The Sinlumkaba garden was inspected by Mr. Thompstone in March. As a result of the state of affairs disclosed, proposals have been submitted to close the garden not later than the 31st of December 1908, after such fruit trees as are worth transplanting have been moved to Katha. It is suggested that a portion of the annual allotment thus released should be devoted to experiments in connection with *taungya* cultivation in the Kachin Hills. The Sima garden has been closed on the recommendation of the Deputy Commissioner. The Myitkyina garden was inspected by the Director of Agriculture in April. It is in excellent order, due to the fact that the district has had a succession of Deputy Commissioners, who have taken a keen personal interest in it. Peaches, limes and a few other fruit trees have been successfully introduced into the district, and the garden will be retained until loquats, lichees and apricots have been similarly established. The Falam garden forms the centre from which various agricultural experiments in the Hills are controlled. The reports from the Chin Hills always reflect a considerable amount of personal interest on the part of the Superintendent. Peaches do not seem to do well anywhere in the Hills, owing probably to lack of pruning. Plums and greengages, however, succeed excellently as do apples at Haka. Sufficient experience has been gained to show what trees are likely to succeed, and attention will now be devoted to the general introduction of these, while those which it is clear will not succeed, will be abandoned. The Katha garden was inspected in March by Mr. Thompstone and the present management of it completely condemned. The garden has been taken over by the Agricultural Department. The report from the Taunggyi garden is, again, very interesting. The receipts have increased considerably, while the expenditure has shown a correspondingly large decrease. Fruit seedling grafts have succeeded well and several varieties are now available for sale. The States appear to be too cold for Sea Island and Caravonica cotton: the latter is much attacked by the red bug. Havana and Virginia tobacco are only moderately successful, and their superiority to the local *Lang Ko* of the Mawkmai State is questioned. Buck wheat and sun flower (Sutton's Giant Yellow) did very well, but the small yield of oil from the latter makes the oil more expensive than local oils, and it is thought that a better policy will be to extend groundnut which has been established in the States for 50 years. Potatoes, cloves, coffee and tea have all succeeded. As regards fruit trees, better results appear to be obtained at Thamakan than at Taunggyi. The most suitable conditions for each variety are being carefully studied, and all possible improvements in location and pruning are being carried out. The total expenditure, under all heads, on the maintenance and up-keep of the gardens amounted to Rs. 9,502, and receipts from sales of produce to Rs. 1,539. The nett Government expenditure was thus Rs. 7,963.

Forests.

Forest Reserves.

130. During the year 1,349 square miles of new reserves were finally notified, the largest areas being in the Southern Circle. Survey corrections caused a net reduction of 52 square miles, 13 square miles were disafforested, and 2 square miles wrongly included in a reserve were transferred to unclassed forests. The total area of reserved forests at the close of the year was 22,857 square miles. Satisfactory progress was made in the work of forest settlement. Of the total area of 5,740 square miles undergoing settlement, 3,350 square miles were taken in hand during the year. The reservations under settlement in the Minbu Division were proposed in connection with the water-supply of the neighbouring

country, and, if accepted, will involve the payment of a considerable sum as compensation for land taken up, but the settlement proceedings had not been submitted to the Local Government at the close of the year. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

131. The length of boundaries newly demarcated during the year was 946 miles as against 429 miles in 1906-07. The length of boundaries remaining undemarcated at the close of the year was 726 miles, more than half of which was in the Southern Circle where, however, good progress was made in demarcating the numerous newly-formed reserves. Seven hundred and twenty-six square miles of reserved forests were surveyed by the Survey of India on the scale of 2 inch = 1 mile. Four and a half square miles in the Pinkan reserve, Ruby Mines Division, were also surveyed on the 4-inch scale. In accordance with recent orders of the Government of India, the cost of these surveys will be borne entirely by the Survey of India. The area of reserved forests remaining unsurveyed topographically at the close of the year stood at 9,400 square miles as against 8,716 square miles at the beginning of the year. Surveys were also carried out by local Forest Officers, chiefly in the case of proposed reserves and for demarcation purposes. Demarcation and surveys.

132. Five working-plans for a total area of 1,421 square miles in the Shwegyin, Mandalay and Minbu Divisions were sanctioned during the year. Plans dealing with 2,230 square miles were in various stages of preparation at the close of the year, when the area of reserved forests not under working-plans stood at 15,032 square miles. Owing to the deficiency of the Imperial staff, progress in the preparation of working-plans is necessarily somewhat slow, but regular plans are being supplemented, especially in the Northern and Tenasserim Circles, by girdling schemes for periods of ten to twenty years under which over-mature and mature teak trees not required for regeneration purposes and likely to deteriorate can be utilized under certain rules over defined areas not under working-plans. The provisions of existing working-plans were for the most part carried out as far as girdlings were concerned. Working-plans.

133. Rupees 93,864 were spent on the construction of 795 miles of new roads and paths, and Rs. 20,425 on repairing 1,767 miles. The reports show that good progress was made in several divisions in the construction of better and more permanent roads than were formerly in existence. Considerable difficulty is, however, experienced in many places in working up to the sanctioned five-years' programmes, owing to the insufficient labour supply. The amount spent on new buildings was Rs. 81,650 as compared with Rs. 69,198 in the previous year, and repairs cost Rs. 42,557. The annual plans of operations under this head are seldom fully worked up to, but in view of the great difficulties which are usually encountered in obtaining contractors and the necessary workmen for construction of buildings in the more remote parts of the forests, the progress made is considerable. Communications and buildings.

134. The number of forest offences reported during the year was 177 fewer than in 1906-07 and 180 less than the average of the previous three years. The number of cases disposed of by the Courts was 894 against 1,241 in the previous year, and convictions were obtained in 759 cases or 85 per cent., which is lower than it should be. The total number of cases compounded was 2,203 as against 2,174 in the previous year. The large majority of offences against the Forest law were of a petty nature. Forest offences.

135. The total area over which protective measures were taken against fire was 7,526 square miles as against 8,153 square miles in the previous year. The season was an exceptionally dry one, particularly in Upper Burma, and the fact Protection of forests.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

that the average percentage of success was the same as in the previous year is therefore satisfactory. The total cost of protection against fire during the year was Rs. 2,73,468, or about Rs. 36 per square mile attempted and Rs. 38 per square mile actually protected. Out of 22,857 square miles of reserved forest, only 737 square miles were open to all animals, and a small further area to browsers only. Grant-holders under settlement and contractors working in the forests are allowed free grazing, and over Rs. 3,000 were collected in fees from the public. Considerable work was done in cutting climbers and felling ficus-infested trees.

Plantations and experimental cultivation.

136. The area of regular plantations maintained by the Forest Department fell from 5,646 to 5,234 acres owing to further curtailment of the Mergui Rubber Plantation. Only 57 acres were in Upper Burma. Fifty-two acres in Thayetmyo District were under cutch, 1,502 acres in Mergui under rubber; there is a small pine plantation in the Ruby Mines District, and the remaining area was under teak. Plantations on hill clearings, mostly of teak, were also practically confined to Lower Burma. The area, 74,715 acres, was nearly 1,500 acres greater than that of 1906-07. The effect of fire-protection on the reproduction of teak continued to engage the attention of Forest Officers. Observations made during the year confirm the theory that the flowering of the bamboo, which has been advancing in a wave southwards over Upper Burma during the last four or five years, has beneficial results on teak reproduction. Cultural operations of various kinds were in progress throughout the Province as in former years, and many interesting experiments were carried out. Arrangements have not yet been made for leasing the Mergui Rubber Plantation. Rupees 41,237 were spent on the plantation and garden during the year against receipts amounting to Rs. 6,044; expenditure on plantations and experiments amounted altogether to 1·11 lakhs, while some twelve thousand rupees were recovered as revenue.

Extraction and sale of timber.

137. Over one hundred thousand trees were girdled during the year, the figure being considerably in excess of that of 1906-07. The total quantity of timber of all kinds extracted rose from over 22 million to 26½ million cubic feet: 3·3 million were worked by Government, 21·8 million by purchasers, and the balance was divided between free grantees and right-holders. In accordance with the policy of Government, the direct operations of the Forest Department were further restricted. The expansion of production did not extend to teak, the outturn of which declined, but was chiefly confined to unreserved woods. The outturn of fuel was somewhat more than in the previous year. Efforts to find remunerative markets for *pyingado*, *padauk*, and other special woods were continued, but no notable development was reported. The timber market at home was in a depressed state, and exports of teak from Burma to the United Kingdom fell from some 31,000 tons in 1906-07 to some 24,000 tons. On the other hand exports of teak to India increased slightly and exports of other woods to India rose from 17,000 to 24,000 tons.

Miscellaneous.

138. Further experiments were carried out without decisive result in connection with the manufacture of paper from bamboo pulp. The tanning factory remained closed; samples of the extract were sent to the Cawnpore Tanning Factory, but were reported to be unsuitable for tanning leather owing to the bad colour imparted to the material.

Mines and Quarries.

Grant of new concessions.

139. Applications were received during the year ending the 31st March 1908 for seven exploring licenses, 52 prospecting licenses and 13 mining leases, while one application was made for renewal of an exploring license and 11 for renewal of prospecting licenses. During the same period nine exploring licenses, 32 prospecting licenses and three leases were issued and 10 prospecting licenses were renewed.

These figures indicate greater activity than in the previous year. A lease was granted to Mr. J. Boog over an area of 160 acres in the Patheingyi Township of the Mandalay District, covering the extraction of silver and lead. The mine is reported to have been abandoned. A mining lease for silver, copper, lead and zinc over an area of 16 square miles in the Tawngpeng State, Northern Shan States, was issued to the Burma Mines Railway and Smelting Company, Limited. In the Maungdaw Township of the Akyab District, three Burmans were granted a coal mining lease over 500 acres. A large proportion of the prospecting licenses were for petroleum, but gold and a variety of other minerals were also represented. A concern which has attracted some interest is the Mount Pima Mining Company, Limited, which has taken out a prospecting license for $7\frac{3}{4}$ square miles in the Yamèthin District. The capital of the Company is five lakhs and the minerals believed to exist in the concession are galena and copper.

Petroleum.

140. The total yield of petroleum rose from 137 million gallons valued at 84 lakhs to 149 millions valued at 90 lakhs. The increased output in the Magwe District was due to the activity of new Companies in the Yenangyaung oil fields. The expansion of the industry in the Myingyan District is attributed to improvement of the pipe line to Yenangyaung. In the Yenangyat oil field, Pakôkku District, the output of oil diminished owing, it is said, to the exhaustion of the field. The development of the field in and round the successful well sunk by the Rangoon Oil Company towards the close of the previous year, has been slow and in several wells the oil is reported to be of inferior quality. Great activity was displayed in the Native Reserves in the Yenangyaung field, Magwe District. Not only did the three Companies that were at work at the beginning of the year compete with more vigour with one another, but a new Company, the Nath Singh Oil Company, Limited, made its appearance and its arrival has increased the pressure of competition. Owing to the severe nature of the competition the price of oil wells and sites rose in an almost incredible degree. A site, which could be bought for Rs. 7,000 at the beginning of the year, at the close of it commanded any price from Rs. 30,000 to Rs. 50,000, and the price of dug and bored wells rose in a like proportion. During the year the project of the Burma Oil Company of laying a pipe line from Yenangyaung to Rangoon was completed, but it was found that the pipes being of steel and lying on the surface were too much influenced by changes of temperature and it was decided to bury them. This will take some time and it is thought that the line will not be ready for use till late in the year 1908 or the beginning of 1909. In the Minbu District the Burma Oil Company have started boring wells near Taukshabin, the port for Minbu town. At the close of the year, an application for a prospecting license, by Sulaiman Adamji, a merchant, was pending. Messrs. Jamal Brothers have obtained a moderate outturn from their wells in the Thayetmyo District. They have applied for an extension of their prospecting license and for two additional licenses. In the Akyab and Kyaukpyu Districts the outturn of oil remains insignificant and the figures show a falling off compared with the previous year.

Gold.

141. The Burma Gold Dredging Company, Limited, continued to work for gold in the Irrawaddy above Myitkyina. It had three dredgers at work during the year and a fourth one has lately been launched from its dockyard at Mankin. The Company has recently been granted a license to extend its operations to points in the Malikha and 'Nmaikha rivers five and ten miles respectively above the confluence, and the Company now hopes to obtain a larger outturn of gold. The quantity of gold won during the year 1907 was 3,837 ounces as compared with 2,300 ounces in the previous year. Several prospecting licenses for gold were issued during the year, but there are at present no certain indications of the existence of gold in paying quantities elsewhere than in the Irrawaddy River near Myitkyina. As in previous years alluvial gold washing on a small scale without the aid of machinery was carried on in many different places throughout the country.

CHAP. IV.—PRODUCTION AND DISTRIBUTION. Rubies.

142. No new ruby-bearing locality was discovered and, with the unimportant exception of a few workers in the Myitkyina District who paid Rs. 30 in license fees, the mining industry was monopolised by the Burma Ruby Mines Company and its licensees in the Mogôk valley of the Ruby Mines District. The industry in the Myitkyina District is in a moribund state. The value of rubies (including sapphires and spinels) extracted by the Company amounted to 17⅓ lakhs, more than three lakhs in excess of the outturn of 1906, while the income of the Company from royalties came to 2·97 lakhs as compared with 2·65 lakhs. Work on the main drainage tunnel was continued; it had reached a length of 4,444 feet by the end of February 1908 and only 1,060 feet remained to complete the work. The state of the ruby market was on the whole good till the end of the year. In the late summer dealers in Paris and London began to get into difficulties over pearls. The distress spread to diamonds and rubies and was accentuated by the monetary crisis in America. After October the demand in London for Burma rubies ceased entirely. In Burma certain qualities were saleable at reduced prices, but the market for precious stones in Burma and India was in a worse state than it has been for twenty years. To reduce expenses the Company have lowered rates of cooly hire from one rupee to twelve annas a day and have curtailed production by stopping night work. The profits of the Company fell from £21,978 to £13,822, and no dividend was declared. The half-year's rent due on the 29th February 1908 has been allowed by the Secretary of State to stand over.

Other minerals.

143. The quantity of jade and jadeite extracted in the Myitkyina District rose from 2,214½ cwts. valued at Rs. 1,17,929 to 3,590 cwts. valued at Rs. 2,84,973. The increased production is attributed to more favourable weather conditions. The season would have been more successful, but for a serious accident to a steam-pump at the Tawmaw mines. Two men were killed and work in the principal quarry was brought to a standstill. Less amber was produced in the same district, but, possibly for this reason, better prices prevailed. Tourmaline mining in the Ruby Mines District was less successful and the value of the outturn fell from Rs. 15,020 to Rs. 4,400. The value of tin extracted in the Mergui District fell from over two lakhs to Rs. 1,73,000. The decrease was due partly to insufficient rainfall during the working season, *i.e.*, from April to September, and partly to malarial fever prevailing in tin mining centres, and to smaller exports owing to the fall in the local price caused by the slump in the European market. No collieries were worked in Burma during the year 1907.

Quarry stones.

144. Clay, laterite, limestone, and gravel were extracted as usual in large quantities. The supply of these stones is practically inexhaustible and the output depends mainly on the demands of the Public Works Department, the Railway and Municipalities for building and road-making purposes. Granite was extracted in five districts. Marble continued to be quarried in the Mandalay District, where it is used chiefly for making the carved figures of Buddha met with everywhere in Burma. A large quantity, about 16,450 tons, of the gneissic granite recently discovered near Kyaikto in the Thatôn District was extracted during th year by contractors for the Burma Railways and for works in Rangoon. The discovery of this stone is likely to prove an important factor in opening out this part of the Thatôn District. Extensive quarries are also being opened out on the island of Kalagauk in the Amherst District by the Rangoon Port Commissioners for stone required for the Rangoon River Training scheme.

Manufactures.

Principal industries.

145. There is no indication of any change during the year of report in the nature of the staple industries of the Province, and there is nothing new to be said on the subject. According to the census of 1901, rice mills supported over 41,000 people, of whom four-fifths were workers, and saw mills 8,000, of whom three-fourths were workers. Of the home industries cotton-weaving and spinning were by far the most important, supporting nearly a quarter of a million persons. Over 90 per

cent. of the actual workers were women. Carpenters and sawyers with their families numbered each about 70,000. Tailoring supported 58,000, the sexes being nearly equally divided. Goldsmiths, silk-weavers, mat-makers, cheroot-rollers, blacksmiths and potters come next in order of importance, and after them turners and lacquerers and makers of felt or wooden shoes. Except in the case of skilled artizans, the census figures were probably below the actual numbers at the time, and since 1901 there has no doubt been a general increase in the number of persons employed in manufactures. The industries which come within the scope of the Indian Factories Act, 1881, are mentioned in the next paragraph. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

146. The provisions of the Indian Factories Act, 1881, which was in force as in the previous year in 14 districts of Lower Burma only, were extended during the year to 16 rice mills, five saw mills, one foundry and two electric tramway works, while one cotton mill and one steam tramway workshop disappeared from the returns. The most important concerns are rice mills (153) and saw mills (79), besides six foundries and three ice factories. The principal increases in the number of factories were in the Hanthawaddy District (five) and in Amherst (six). The number of operatives employed rose from 30,553 in 1906 to 35,681 in the year under report. In Akyab the average daily number was 1,531 as compared with 503 in 1906. The figure for 1906 was abnormally low, as seven out of the eleven factories in this district were closed throughout that year. Only one factory was closed in 1907. In the Hanthawaddy District there was an increase of over 2,000 in the number of operatives employed in the Syriam Oil Works. In Bassein, where two new rice mills were opened by European firms, the number of operatives rose from 1,400 to 1,900. The general sanitary conditions of the factories in the Province are reported to be good. The great majority of the factories are either rice or saw mills, which do not easily admit of overcrowding, and managers are usually willing to make adequate provision for the sanitation of their premises and the health of their employés. In Rangoon and Moulmein the swampy character of the ground on which some of the mills are built makes thorough sanitation very difficult. At Akyab and Bassein the provision of good water is probably the most important sanitary question. Cholera broke out in both places during the year. The Municipal water-works now approaching completion will, it is hoped, solve the difficulty at Abyab. The rates of wages given show little variation from the figures of 1906. The condition of the operatives is good, and unskilled labourers are generally better off in factories than when employed in the paddy-fields. The number of women and children employed in factories in Burma in 1907 was 812 and 284 respectively, as compared with 652 and 313 in 1906. The employment of children is practically confined to Rangoon and the neighbouring district of Hanthawaddy. Both women and children are employed on suitable forms of light labour and are reported to be not overworked. Steps were taken during the year to facilitate the identification of certificated children, and the revised rules for this purpose came into force just after the close of the year. Fencing of machinery is reported to be adequate, and such minor defects as have been pointed out have generally been remedied. There were 184 accidents in the year as compared with 153 in 1906. Ten of the accidents were fatal, all of them in Rangoon or the Hanthawaddy District. Inquests were held in all cases except in one in which a Chittagonian tindal was run over and killed by a train. The result showed that the accidents were either not preventible or were due to the carelessness of the persons injured. Two prosecutions were instituted under the Factories Act during the year. The managers of both of the two mills in the Thatôn District were prosecuted and fined small sums under section 15 (*i*) of the Act for continual neglect to send in returns. Since the imposition of the fines they have made no default in this respect. Factories.

Trade.

147. Excluding Government transactions, the aggregate sea-borne trade of Burma for the year ending on the 31st March 1908 once more surpassed all previous records. The total of 56·39 crores exceeded the figure of the previous Maritime Trade. Total value.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

year, which itself constituted a record by no less than 796 lakhs or 16 per cent. as compared with an advance of 13 per cent. in 1906-07. Foreign trade expanded by 17 per cent. and Coasting trade by 15 per cent. The substantial improvement in the total trade (both Foreign and Coasting) during the past two years is a sign of the increasing prosperity of the Province. In the Foreign trade there was an increase in imports as well as exports, owing chiefly to larger importations of metals, silk and woollen goods and greater exports of rice. In the Coasting trade also imports and exports expanded, especially the latter. This is accounted for as in the previous year by larger shipments of rice. Of the total value the Coasting trade represented 48 per cent. as compared with 49 per cent. in 1906-07. Eighty per cent. of the entire trade passed through the port of Rangoon, Moulmein being second and Akyab a good third with over 7 per cent. each.

Foreign Imports—Rangoon.

148. Foreign imports at Rangoon amounted to 1,106 lakhs out of a total for all ports of 1,134 lakhs. This figure was 177 lakhs in advance of that of the previous year. There was improvement in each of the groups into which imports are divided. Under articles of food and drink there was a considerable increase of 28 lakhs due to larger importations of provisions, sugar and liquors. The value of imported salt also rose from 9·63 to 10·87 lakhs. The United Kingdom held its own against Germany, but consignments from comparatively new sources increased largely. Shipments of sugar rose in value from 32½ to 40½ lakhs. Nearly all the sugar imported is cane sugar from Java. The noticeable advance from 185 to 262½ lakhs under metals and manufactures of metals was mainly due to heavy importations of steel pipes and other articles from the United States by the Burma Oil Company in connection with the construction of a pipe-line from the oil fields in the Magwe District to Rangoon. Imports of machinery and millwork fell off owing to reduction of the demand on account of mills under construction. Improvement under Railway plant and rolling stock is accounted for by the purchase of locomotives, etc., for the Pegu-Martaban Railway Extension. The value of cigarettes imported increased largely from 9·72 to 15 lakhs. Imports of kerosene oil from America again rose from 9 to 12¼ lakhs. The reduction from over 5 lakhs to Rs. 70,000 in imports of jewellery and plate is due to the fact that these articles being imported mainly through the post are now classified under articles by post not specified, under which head there has been a corresponding increase in value. Matches were mostly of Japanese origin and were imported from the Straits Settlements. Imports of umbrellas, the bulk of which were supplied by the United Kingdom, advanced from 1,017,176 to 1,064,068 in number, but declined in value from 9·55 to 9·43 lakhs.

Foreign Imports—Minor Ports.

149. The value of the aggregate foreign import trade in merchandise of the subordinate ports rose from 26¼ to 27¼ lakhs. There was an improvement in all ports except Bassein, due chiefly to larger imports of metals into Akyab, cotton manufactures into Akyab and Mergui, provisions and sugar into Moulmein, and matches into Akyab, Mergui and Tavoy. There were no importations of railway material into Bassein during the year of report, and this falling off combined with a contraction in consignments of machinery and millwork accounts for the heavy decline from nine to three lakhs in imports of merchandise to this port. The imports of salt into Bassein were very small, owing to the large stocks remaining in bond at the beginning of the year, but, owing to the fishing season being an exceptionally good one, there were large clearances of salt from bond to be used in curing fish. Substantial improvement is observable in the foreign import trade of Mergui and Tavoy during the year under review. During the past year the Burma Development Syndicate, Limited, imported large quantities of mining machinery, smelting plant, electric appliances, and railway plant into Victoria Point for working tin in the Mergui District on European methods.

Foreign Exports—Rangoon.

150. The export trade from Rangoon to foreign countries rose in value from 12·16 to 14·13 crores. The articles which chiefly contributed to this expansion were rice, rice-bran, wood, oils, fodder and lac. Exports of rice rose from 21¼ to 21½ million cwts., while the value increased from 9·11 to 10·70 crores. The chief

features of the Burma rice trade in 1907-08 were (1) the bumper crop, (2) the strong demand from India which exceeded that of the previous year and again affected shipments to foreign ports, and (3) the rise in prices owing to the demand for Bengal above the abnormal average rate of the previous year. The average value of white rice has been steadily rising during the past few years, and in the year under report was Rs. 5-5-10 per cwt. as against Rs. 4-12-9 in 1906-07. About 300,000 cwts. of rice less than in the previous year were sent from Rangoon to the Continent of Europe, but had the demand for India been less keen, exports would in all probability have been larger. Shipments to the United Kingdom, the Straits Settlements, Germany, Belgium, Eastern Africa, and especially to Java advanced considerably, but those for Ceylon, Australasia, Holland, Austria-Hungary, Roumania, Egypt, Japan and South America declined. Towards the close of the year representatives from Ceylon visited Burma to enquire into the possibility of Ceylon obtaining more of its staple food from Burma, as Burma rice is cheaper and exports are not affected by local scarcity as frequently happens in India. Proposals are under consideration either for erecting special mills in Burma to meet Ceylon's requirements or for importing paddy from Burma and steaming it in mills to be erected at Colombo. The important position held by Burma in the rice trade of British India may be gauged by the fact that about three-fourths of the entire exports of rice from British India to coasting and foreign ports come from Burma. The value of paraffin wax exported rose from 9·59 to 16·87 lakhs owing to a steady demand. The total of other kinds of mineral oils exported rose from 819,639 gallons to more than 5½ million gallons owing to large shipments of benzine and fuel oil. It is believed that the demand by the Admiralty for fuel oil will continue. Shipments of rice bran rose from 132,298 tons valued at 44 lakhs to 206,916 tons valued at 80 lakhs. The increased demand and high prices were due to poor fodder crops in Europe, while larger supplies were available owing to an increase in the quantity of *white rice* milled. There was a heavy drop from 54 to 37 lakhs in the value of hides exported chiefly in the trade with the United States. The decline is attributed to the financial crisis in America, to excessive stocks in Europe and America, and to losses on stocks due to a fall in prices. Shipments of teak advanced from 30,321 tons valued at 44 lakhs to 32,548 tons valued at 49·78 lakhs. The bulk of it goes to the United Kingdom. The share of the British Empire in the total trade of Rangoon fell from 56·26 per cent. to 52·85 per cent. of the aggregate trade of the port.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

151. The value of the aggregate foreign export trade in merchandise of the subordinate ports showed a substantial expansion from 307 to 365 lakhs. The improvement was most noticeable in the case of Akyab and Bassein, and was mainly due to larger shipments of rice from Akyab, Bassein, Tavoy and Mergui, and rice-bran from Moulmein. Moulmein, however, exported smaller quantities of teak and rice, owing in the first case to the continued decline in the supplies of first class or "Europe" timber, and in the second case to the large shipments to India. The navigation of the Moulmein river is still in a bad state, and several vessels left the port with part cargoes of rice and completed their loading at either Rangoon or Bassein. The improvement in the rice trade of Akyab was satisfactory in view of the poor shipments of the two previous years. A consignment of paddy was for the first time shipped from Kyaukpyu to a foreign port. The decline in the foreign export trade of Mergui was due to smaller shipments of fishmaws, fish manure and shells.

Foreign Exports—Minor Ports.

152. The expansion in the Coasting trade of the Province was not far behind that of the Foreign trade. Imports increased by 125 lakhs to 11·22 crores and exports by 237 lakhs to 16·04 crores. The value of the Coasting trade of the subordinate ports rose from 426 to 593 lakhs, of which latter amount Akyab and Moulmein account for 258 and 257 lakhs respectively. Imports advanced in value from 205 to 249 lakhs, while exports, chiefly rice, showed a substantial improvement from 220 to 344 lakhs. The following remarks are confined to the Rangoon trade. The total value of the Coasting trade of Rangoon reached 20·18 crores against 18·36 crores in the previous year. The expansion is due to con-

Coasting Trade.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

tinued heavy shipments of rice to India, and in a less degree to exports of teak and to imports of gunny-bags, oils, cotton goods, grain and pulse and tobacco. Exports of rice to Indian ports rose in value from 585 to 710 lakhs. Larger shipments were made to Calcutta on account of scarcity in Bengal. A revival also took place in shipments to Bombay. Exports to Madras ports declined, but were still larger than the average exports of the previous five years. Exports of teak rose from 56,699 tons to 71,365 tons. An increase of 30 lakhs under yarns and textile fabrics was due to increased importations of silk and woollen manufactures. The expansion of trade in raw silk appears to indicate that the local weaving industry is in a flourishing condition.

Transfrontier Trade.

153. The inland trade of Burma with foreign countries and with the tributary States and tribes on the external frontier was valued at 534 lakhs, of which 257 lakhs represent imports from foreign countries into Burma and 277 lakhs exports from Burma to foreign countries. The expansion of over 9 per cent. was shared by Western China, Northern Shan States, Northern Siam and Southern Siam. Decreases in exports of silver, required to meet expenditure in working the forests of the Southern Shan States, and in imports of teak timber from Karenni, have resulted in the decline of trade with these two States, otherwise the trade on the whole was very healthy, especially that with Western China and the Northern Shan States.

Trade routes —Western China.

154. The total value of trade with Western China during 1907-08 amounted to 87 lakhs, and shows an increase of 5·85 per cent. in imports, and 9·09 in exports. There was an advance under opium from the Yünnan Province and silk, raw (yellow silk) from the Szechwan Province, while silver increased by two and a half lakhs, due to large imports of bullion; but the decrease in hides was due to less mortality among cattle. In exports there has been an increase under twist and yarn, Indian, provisions, tobacco and wool. A good road has been constructed on the Bhamo-Momauk-Kulikha route leading to the frontier, but the continuation of the route across the frontier is difficult and unsatisfactory. The trade of Burma with Western China is greatly hampered for want of easy means of communication; the roads on the Chinese side are anything but good, and considerable inconvenience and delay are experienced by traders, especially during the rains. The question of constructing a railway has been engaging the attention of Government for several years past, but engineering and other difficulties have delayed the solution of the problem. From the reports of frontier officers it appears that no taxes or tolls are levied on goods entering or quitting this Province at points on the trade routes just beyond the border. But further away certain taxes are levied on goods in China and in the Shan-Chinese countries at recognised *likin* stations. In the unadministered territory of the Hukong Valley, the Chief of Walawpun collects a toll of one-twentieth *ad valorem* on all rubber exported from his territory, and he also levies a small sum on all articles imported.

Northern Shan States.

155. Imports from the Northern Shan States rose in value from 67 to 82 lakhs and exports from 61½ to 86½ lakhs. The increase of trade by this route is an indication of the benefit derived from the opening of the Mandalay-Lashio Railway line. If a good road is constructed from Kyauktalôn in the Northern Shan States to Mogôk, it is believed that considerable traffic would be attracted by it as Mogôk is largely dependent on the Mainglôn States for grain supplies and tea.

Southern Shan States.

156. The trade with the Southern Shan States totalled 158½ lakhs as compared with 162 lakhs for 1906-07. There was not much fluctuation under imports, the total remaining at 68 lakhs. The decline under exports was due to a fall from 38 to 16 lakhs in exports of treasure counterbalanced by an expansion from 56 to 74 lakhs under the head of merchandise. The trade of the year was rather disappointing, and the result is attributed in part to deficiency of rolling-stock at Myittha, Kyauksè District. Merchants are said to have suffered loss, as goods imported from the Shan States were stacked in the open and deteriorated in value on account of rain and exposure.

157. The trade exchanged with Northern Siam increased from 61 to 65 lakhs. The expansion was to due to larger imports of treasure. Exports from Burma remained at 27 lahks, an increase under merchandise being counterbalanced by a decline in exports of treasure. Northern Siam.

158. The total trade with Southern Siam was valued at 14·73 lakhs, a figure only slightly larger than that of the previous year. The trade was nearly evenly divided between imports and exports. The development of trade with Siam depends to a large extent upon easy means of communication being provided, and on the adoption of effective measures by the Siamese authorities for checking elephant theft, which has been frequent of recent years, and which can only be stopped by increasing the police force and placing detectives at the various important fronter stations, especially in the Siamese-Salween District. Southern Siam.

159. Trade with Karenni declined in value from 40 to 39 lakhs. Imports fell off by 7 per cent. while exports increased by 5 per cent. Less timber was extracted from the forests during the year. Karenni.

Public Works.

160. From the 1st April 1907, the following classes of buildings, which were previously treated as Provincial buildings, were classified as Imperial :— General.

(1) Post offices ;
(2) Telegraph ;
(3) Customs ;
(4) Currency ;
(5) Ecclesiastical (excluding cemeteries) ;
(6) Meteorological.

There were no important changes during the year under review in the different cadres of the Public Works Establishment. The general reorganization of the Engineer Establishment (Executive and Assistant Engineer classes) on incremental rates of pay, introduced by the Government of India after the conclusion of the year under report, took effect from the 8th March 1908. A Committee was appointed to consider accommodation in Court Houses and to draw up Standard Plans for them. Their report has since been received and is under consideration. The total outlay on public works from all sources during the year 1907-08 amounted to nearly 140 lakhs or almost a lakh in excess of the total of the previous year. The small increase was mainly accounted for by enhanced expenditure on Imperial Civil Works counterbalanced by reductions under the Heads of Imperial Military and Contribution works. Practically the same sum was expended on Provincial Civil Works as in 1906-07.

(*i*) *Roads and Buildings.*

161. Ten thousand nine hundred and seventy miles of made roads as distinguished from *kachcha* tracks were open to traffic at the end of the year. Of this total 1,834 miles were metalled and 9,136 miles unmetalled. One hundred and thirty-eight miles of metalled and 3,197 miles of unmetalled roads were maintained by local authorities and the balance by the Public Works Department. The figures show an addition of 41 miles of metalled and 560 miles of unmetalled roads during the year. The aggregate expenditure on communications amounted to 16·23 lakhs on original works and 24·56 lakhs on maintenance. A lakh and three-quarters more were spent on repairs, but the outlay on new roads showed a shrinkage to the extent of $2\frac{1}{2}$ lakhs of rupees. Practically the same amount was spent on unmetalled roads, but the cost of new metalled roads again fell off by $2\frac{1}{2}$ lakhs. Communications.

162. Work on the widening of the Ruby Mines road from Thabeitkyin to Mogôk was continued, metal was collected and some stone bridges of small span were built to replace old wooden bridges ; protective fences were erected on dangerous parts of the road. Additional improvements to make the road suitable Metalled roads.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

for tonga traffic were completed and the road near Mogôk was realigned. A road round the Park at Maymyo was completed. The road from Mandalay to Lamaing was in progress and eight miles out of sixteen were metalled. The construction of a bridge over the Nadaung-Kya-Chaung at mile 13·7 on the Mandalay-Lashio road was in progress. The steel truss bridge at Toungoo over the Sittang River, connecting the hill station of Thandaung and the country east of the river with the railway, was opened to traffic. Improvements were carried out on the Pathichaung-Thandaung road which can now be considered as completed. The road from Pènwègôn to Ananbaw was resectioned and raised in places. A start was made to raise and improve the Daiku feeder road. The Pegu-Tandawgyi road was nearly completed. The old wooden bridges over the Wônbadet, Wanetkôn, Tein and Bala streams on the Pegu-Taukkyan road being unsafe were dismantled and fair progress was made on new brick bridges with three forty-feet arched openings over the Tein and Bala streams. The new bridges will have re-inforced concrete floor slabs with rolled steel joists as girders, the whole carried on re-inforced concrete piles. Materials were also collected for a new bridge of the same type to replace the old wooden structure over the Payagale stream on the Pegu-Toungoo road. The masonry abutments of two new bridges to replace existing old wooden structures over the Thèlôn and Myittha streams on the Thazi-Taunggyi road were completed and the erection of the timber lattice girders was started. The renewal of bridges in miles 8 to 42 was completed and the construction of a parapet wall in the 49th mile was put in hand; work was also started on the metalling of the branch road from mile 92½ to Nawnghwe, seven miles. The road to the steamer Ghat at Pakôkku was completed. Metalling the Minbu-Salin road made good progress, and the renewal of bridges with permanent abutments on the Taungdwingyi-Migyaungyè road was commenced. The feeder road from mile 64 of the Martaban-Kyaikto road to Hninpale Railway Station on the Pegu-Moulmein Railway was practically completed. Renewal of bridges on the Tavoy-Pagaye road was in hand. With a view to diverting traffic on to the berms of roads, the berms of the Minhla-Sinkanlan, Prome-Paukkaung and the Rangoon-Insein roads in the Tharrawaddy, Prome and Hanthawaddy Districts respectively, were improved and the experiment is being watched. The Kokine road was widened by six feet in the fourth and fifth miles; the widening of the first three miles was in progress. A beginning was made with the metalling of the Henzada-Ngathainggyaung road.

Unmetalled roads.

163. As in previous years much useful work was done throughout the Province in opening out and maintaining unmetalled roads and bridle-paths. Details of the very numerous works are not of sufficient interest to find a place in this report.

Communications—Miscellaneous.

164. Three wire rope ferries were completed on the Chinese Frontier road between the Military Police posts of Lweje and Pangkham, and progress was made with another at Saw in the Pakôkku District. A number of inspection bungalows, rest-houses and caravanserais were constructed during the year. Expenditure on "Accommodation for travellers" amounted to 1·37 lakhs, nearly double the total of the previous year.

Buildings—Imperial.

165. Owing to the transfer mentioned in paragraph 160 of certain classes of buildings from the category of Provincial to that of Imperial Works, the expenditure on Imperial buildings rose from Rs. 8,141 to Rs. 3,48,130. The northern half of the Bonded Warehouse, Customs Buildings, Rangoon, a corrugated iron structure, was dismantled to improve the ventilation and lighting of the Currency building, and the southern half was extended. Seven new post offices, two combined post and telegraph offices, and one telegraph office were completed during the year. Additional works were also carried out at the Wireless Telegraph stations at Diamond Island and Slipper Island. Extensive additions to the Currency Buildings, Rangoon, to provide extra accommodation for the Accountant-General, Burma, and Commissioner of Paper Currency, commenced in 1905, were practically completed during the year at a total cost of Rs. 4,61,952. The

work of rendering fireproof the Treasure vaults in the Currency Buildings, Rangoon, was partially completed. In January 1908, a serious collapse of a portion of the façade of the old Currency Office took place. A Church, towards which the Provincial Government contributed Rs. 3,502, was completed at Pakôkku, and new caretaker's quarters were erected for St. Mark's Church, Prome. Military Works are dealt with in paragraph 106. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

166. The expenditure from Provincial Funds on civil buildings amounted roughly to 47 lakhs of which repairs and up-keep account for a little over 7 lakhs. The outlay on original works was some Rs. 30,000 less than in the previous year, but it must be borne in mind that the change of classification referred to in paragraphs 160 and 165 causes an apparent reduction of expenditure under the head of Provincial buildings. Under original works the largest assignment, nearly 14 lakhs, was made to the Medical Department, while $8\frac{1}{3}$ lakhs were allotted to Police, nearly 7 lakhs to Law and Justice, $4\frac{1}{2}$ lakhs to Administration, $2\frac{1}{3}$ lakhs to Education and under a lakh to Jails. Offices, quarters for officers and other necessary buildings were in course of construction during the year for the various departments of the Administration. Several new works were carried out at Government House, Rangoon, a hydrolytic tank and contact beds for the efficient disposal of sewage were laid down, a new tube well was sunk, and additional stabling provided; improvements were also made to the grounds and kitchens of Government House, Mandalay, in connection with His Excellency the Viceroy's visit. A new wing was added to the Secretariat Camp Office at Maymyo, and Rs. 20,930 were spent on the work during the year. Government School buildings were in progress at various centres. The boarding-house attached to the Government High School at Maymyo was enlarged to provide for 65 boys, against 30 provided for originally, at a cost of Rs. 56,544, and the High School at Minbu was improved. At Insein the Survey School and the Engineering School were completed with the exception of quarters for the Headmaster and the Technical Instructor of the Engineering School. Progress was made with the construction of the new Chief Court at Rangoon; the interior brick work of the main building was completed up to roof level and most of the face work, also the roof except that of the east and west verandahs and the central dome. The reinforced concrete flooring in the second and third storey was completed, also most of the interior plastering; and the clock tower was brought up to plinth level. This tower is carried on timber piles, and has a clean slip-joint all round so as to ensure equal settlement without affecting the surrounding portions of the building. A three-storied building to the north of the main building, providing peons' quarters, carriage shed, and stables was practically completed, and the remaining subsidiary buildings were commenced. In the mufasal a number of new Court houses were provided and two new Circuit-houses were built. Work progressed on the new Central Jail at Moulmein; certain alterations had to be made and additional buildings provided necessitating a revised estimate for Rs. 6,62,859. This jail has since been occupied. Good progress was made on the most important Police work under construction, namely, the Police Training School at Mandalay, and numerous works of minor importance were erected for the Civil and Military Police all over the country. Work advanced a stage on the new General Hospital Buildings at Rangoon, begun in 1905. Structural work in the main building and paying-patients block was brought to completion, also the internal plastering and most of the doors and windows. Work was well advanced on newillite tile dados, marble and tile floors and stamped steel ceilings. The out-patients block and matron's quarters were completed and occupied, and several other buildings were nearly finished. Additions and improvements were also made to the Civil Hospital at Maymyo. The foundations and walling up to plinth level of the new Government Press Buildings at Rangoon were completed during the year and materials for the superstructure were collected. The two pillars of Victory found outside the wall of the Town of Pegu are being erected on a masonary pedestal in front of the District Court. It is believed that these pillars were erected in 1025 and 1027 A.D. to commemorate the Buildings—Provincial.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

victory of Prince Rajendra Chola I, who crossed the sea and over-ran Kidaran (or Kataha in Sanskrit), which may be identified with the ancient Talaing Kingdom of Ramanadesa now called Pegu.

Miscellaneous.

167. Nearly 15 lakhs, the same amount as in the previous year, were spent by the Public Works Department on miscellaneous works not coming under the head of roads and buildings. Of this amount 4·41 lakhs were a charge on Provincial Funds. Nine lakhs were devoted to improvements to towns and the balance to various minor works. Road-making and jungle-clearing was carried out at various civil stations. Work on the Rangoon Town Lands Reclamation Scheme was continued and good progress made, the expenditure aggregating $8\frac{3}{4}$ lakhs, of which $7\frac{1}{2}$ lakhs represents Municipal outlay and $1\frac{1}{4}$ lakhs work done for other bodies or private individuals. Various minor projects of water-supply and drainage were completed during the year or in progress.

(*ii*) *Railways and Tramways.*

Railways—Construction.

168. The Provincial Railway System continued to be worked throughout the year by the Burma Railways Company. The length of open line on the metre gauge rose from 1,340·15 miles at the opening to 1,474·92 miles at the close of the year, the extension being accounted for by the 121·27 miles of the Pegu-Martaban Extension, completed and wholly opened for traffic on the 25th September 1907, and 13·50 miles (from Henzada to Danbi) of the unfinished Henzada-Kyangin Extension, opened to the public from the 1st July 1907. The total expenditure on the former line has amounted to 128 lakhs as against an estimated cost of about 123 lakhs; on the latter line 52 lakhs have been expended, out of an estimated total of close on 63 lakhs. The project for the East Daga Loop line is still held in abeyance pending the settlement of various questions. The process of doubling the main lines has progressed perceptibly; on the Irrawaddy Section a second line of four miles from Hmawbi to Wanetchaung, and on the Sittang Section a second line of nine miles between Togyaunggale and Ledaunggan were completed and brought into use. Other important works in progress were the remodelling of Letpadan Station, the construction of the Malagôn depôt, the improvement of the permanent way and the coaching stock, and the extension of the use of the automatic vacuum brake in goods trains. The settlement of final alignment of the projected metre gauge line from Thazi to Taunggyi (111 miles) was in progress, and detailed surveys of the Pyinmana-Magwe (120 miles) and Moulmein-Myawaddy (76·20 miles) Extensions have been completed. The reconnaisance survey of the Têngyüeh-Talifu line (250 miles) has been accomplished. In addition to these surveys, carried out by the Government, the Burma Railways Company completed their surveys of a line from Kyangin to Nattalin (39·56 miles), from Shwebo to Ye-u (22 miles), from Myingyan to Natogyi (18·79 miles), and from Henzada to Wetkyaung on the East Daga Loop *viâ* Danubyu and Begayet (93·84 miles), with a branch from Danubyu to Pantanaw (24·25 miles). The first of these proposals has been abandoned. The Company has had under consideration the project of bridging the Sagaing River.

Railways—Interruptions and accidents.

169. The most serious interruption during the year was due to the dismantling of two miles of line on the Tharawaw Branch on account of the apprehension that the railway embankment would so confine an anticipated high flood of the Irrawaddy as to endanger the embankment on the southern shore, protecting Henzada town and an enormous and most valuable rice-producing area. The danger, however, passed, and traffic was resumed on the 5th November 1907. Other flood interruptions were few in number and unimportant, amounting to no more than three instances, of which the most serious caused a complete interruption of traffic for only one day. Accidents have been somewhat numerous, but fortunately there has not been any so serious as the derailment of the previous year; one accident involving slight injuries to three persons and the derailment of a considerable number of coaches was caused by the

removal of bolts and spikes from the railway line, probably by some members of the permanent-way cooly gang. Altogether in thirteen instances passenger trains were involved in accidents, generally resulting only in damage to material. In one case which occurred at Pazundaung, two firemen were injured and some passengers sustained slight hurts; in another case fire caused by the ignition of an open tin of kerosine oil by a cheroot carelessly thrown down was averted on a mail train by the prompt action of the driver who, stopping the train, extinguished the fire in a few minutes; no serious damage was done, but a woman and a boy who in their panic left the train while in motion were injured, one seriously. In another case in which fortunately collision was averted, the responsible officer was prosecuted and convicted. Another derailment was caused by a buffalo straying on the line; in this case one man was killed and three injured, one seriously. Accidents to goods trains were 8 in number, involving no casualties. Locomotives were concerned once, a ballast train twice (in one of which cases a man was killed) and a trolly once, a trollyman being injured. Injuries and loss of life were satisfactorily rare.

Railways—Finance and traffic.

170. The capital outlay during the year of report amounted to 99¼ lakhs, an increase of 54½ lakhs on the figure of the previous year; the total capital expenditure now stands at 16 crores 45 lakhs. The gross earnings of the railway were 179 lakhs, an advance of 19¼ lakhs on the year 1906-07, and working expenses fortunately increasing in a smaller proportion from 100⅓ lakhs to 108¾ lakhs, the net earnings for the year amounted to 70¼ lakhs, an increase of over 10¾ lakhs. The percentage of expenditure to receipts decreased to 60·69, while that of net receipts to capital outlay advanced to 4·28. The aggregate train mileage 5,528,215 miles was 333,672 in excess of the record for the year 1906-07, and earnings per train mile rose slightly from 3·08 to 3·24, this being however counterbalanced by a slight rise in the average expenses per train mile from 1·93 to 1·97. The figures, however, are on the whole satisfactory.

Tramways.

171. No addition was made during the year of report to the existing number of tramways in the Province. The steam tramway, nearly 8 miles long, over which the Irrawaddy Flotilla Company run one passenger train daily each way between Thatôn and Duyinzeik on the way to Moulmein, earned roughly Rs. 16,000 from the 1st April to the 15th November 1907. As was anticipated, it was no longer found profitable to continue the service after the opening of the Pegu-Martaban extension of the Burma Railways, and the line was closed for traffic from the later date mentioned. The first electric car was run on the Rangoon Tramway lines on the 15th December 1906 and the electrification of the system was completed in March 1907. During the year 1907 many new sections were opened and further extensions are contemplated. The total number of passengers carried during the year ending 31st December 1907 was 6,026,915 as against 3,433,540 in the preceding year. The running mileage was 973,187 and receipts Rs. 5,68,603 as compared with 328,180 running mileage and Rs. 2,75,753 receipts during 1906. In Mandalay the Electric Tramways extend to 6½ miles of double track. The prosperity of the Tramways appears still to be adversely affected by the prevalence of plague. The mileage run increased from 543,587 to 651,043 miles, but the number of passengers carried, 2,575,925, was again somewhat less than in the previous year. One fatal accident occurred on the line. Some advance was made in the construction of the Madaya light railway in the Mandalay District, but difficulties were encountered and the period allowed for completing the line was extended by twelve months.

(*iii*) *Canals.*

Navigation Canals.

172. The Pegu-Sittang and Sittang-Kyaikto Canals, respectively, 45½ and 14 miles long, remained open for traffic throughout the year. All other canals in Burma are primarily irrigation works and, with the exception of the Shwetachaung in the Mandalay District, are not used to any extent for traffic. Two hundred

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

and thirty-five thousand two hundred and sixty-five tons of goods and rafted produce valued at 105¾ lakhs were carried on the Pegu-Sittang Canal, and 18,802 tons worth 9¾ lakhs on the Sittang-Kyaikto Canal. Traffic improved on the former and declined on the latter. The Lower Burma Canals earned Rs. 1,81,104 and Rs. 8,532 respectively, while expenditure amounted to Rs. 1,56,607 and Rs. 17,371. Navigation charges on the Shwetachaung brought in nearly six thousand rupees.

Irrigation.

Major Works, Imperial—(i) Completed works.

173. The Mandalay and Shwebo Canals were the only major irrigation works which earned revenue during the year 1907-08. The area irrigated from these Canals rose from 46,282 and 44,639 acres to 53,503 and 70,670 acres respectively. These figures show a marked improvement on previous results. On major irrigation works the bulk of the receipts represent water rates *plus* the difference between the "dry" and "wet" rates assessed as land revenue. During the year revenue collections amounted to 4·04 and 2·94 lakhs on the Mandalay and Shwebo Canals respectively, and working expenses to Rs. 94,307 and Rs. 1,27,621. The surplus revenue of both works shows satisfactory expansion, and is equivalent to 6·03 and 3·38 on the capital expenditure of 51 lakhs on the Mandalay Canal and 49 lakhs on the Shwebo Canal. An effort is being made to extend the irrigated area on the Mandalay Canal by the construction of direct outlets from the Main Canal to serve land not previously irrigated, and in some cases not included in the original project, and four watercourses for this purpose are under construction. A further increase is anticipated as a result of draining tracts that were formerly water-logged. The Shwebo Canal project is still incomplete. The head works are complete in all respects, but some protection to the left bank of the river below the undersluices was needed and was carried out during the year. Work remains to be done on the distributaries and watercourses.

Major Works—(ii) Works under construction.

174. Very little work was done on the Ye-u Canal and only Rs. 5,504 were spent on it. A revision of the original project design is being prepared. The total outlay to the end of the year amounted to 6¼ lakhs against an estimate of 35 lakhs. Progress on the Môn Canals was again delayed owing to the difficulties experienced by the contractors in obtaining labour. The excavation of the North Canal and the construction of all but one of the cross drainage works as originally designed have been completed. The first 15 miles of the South Canal have also been practically finished. An exceptionally heavy fall of rain (5¾ inches in six hours) occurred in October and the North Canal was badly damaged by the drainage water which swept across it. Over eight lakhs were spent during the year, and on the 31st March 1908, the capital outlay exceeded 25 lakhs, the estimated cost of the work being 44 lakhs.

Minor Works—Provincial.

175. The total area irrigable from the minor irrigation works in the dry zone of Upper Burma is roughly 526,000 acres, but the area actually irrigated in any year is usually very far short of this maximum. With some important exceptions, these works were constructed before the annexation of the Upper Province, but they have been much improved in the course of time by the Public Works Department. During 1907-08 253,000 acres were irrigated as compared with 246,000 in the previous year, and the receipts, consisting of a varying share of the land revenue assessment, increased by Rs. 95,000 to 10·03 lakhs, while working expenses, 6·81 lakhs, fell off by over a lakh, resulting in a net revenue of 3·22 lakhs. 1·96 lakhs were expended on new works and 1·60 lakhs on repairs. The most important works were carried out on the Shwetachaung and Kinda Canals, and on minor works in the Kyauksè District, while a considerable sum was spent on repair works on the Salin Canals.

CHAPTER V.

REVENUE AND FINANCE.

REFERENCES:—

Land Revenue Administration Report of Burma for the year ended the 30th June 1908.

Report on the Administration of the Excise Department in Burma during the year ending the 31st March 1908.

Report on the Administration of Salt Revenue in Burma during the year 1907.

Report on the Administration of the Stamp Revenue in Burma during the three years ending the 31st March 1908.

Report on the working of the Income-Tax Act, II of 1886, in Burma for the triennium 1905-06 to 1907-08.

Report on the Maritime Trade and Customs Administration of Burma for the year 1907-08.

Report on the working of the Rangoon Municipality for the year 1907-08.

Resolution reviewing the Reports on the working of the Municipalities in Burma during the year 1907-08.

Forty-second issue of the Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries in the year ending the 31st March 1908, and the four preceding years, Volume II, Table 7.

Second issue of the Statistics of British India for the year 1907-08 and preceding years.

Provincial Settlement.

176. The new Provincial Settlement came into force on the 1st April 1907, and no particular term of years has been fixed for its duration. Changes of some importance have been made in the distribution of Revenue and Expenditure between Imperial and Provincial Funds. The heads Salt, Customs and Post Office have been wholly imperialised and certain minor changes of classification have been made (*e.g.*, the imperialisation of the receipts and charges on account of Imperial buildings). Political expenditure has been provincialised. As regards divided heads of expenditure generally, the standard distribution which has been recently adopted or approached in the settlements made with other provinces has been followed. These standard proportions are as below:—

2. Assignments—to be shared between Imperial and Provincial in the same way as the corresponding heads of revenue.

3. Land Revenue—wholly Provincial.

X and 12—Registration—wholly Provincial.

Other divided heads—half Provincial.

The effect of the Settlement is that the Local Government receives revenues which amount to 349 lakhs and will be responsible for expenditure amounting to 439½ lakhs, the difference being made good by an annual fixed assignment of 90½ lakhs. An initial grant of 50 lakhs was made to Provincial revenues. Of this sum 15 lakhs were provided as a final allotment to cover all future plague charges and the remaining 35 lakhs were intended to meet ordinary initial requirements.

Gross Revenue.

CHAP. V.—REVENUE AND FINANCE.

177. The sum total of all receipts of the year preceding the 1st April 1908 paid in to the credit of Imperial, Provincial and Local Funds was in round numbers 10 crores 27 lakhs of rupees, or £6,847,000 sterling, calculated at the rate of 15 rupees per sovereign. Of this total the Imperial share amounted to 382 lakhs or £2,547,000 sterling, an increase of 47 lakhs over the receipts of the previous twelve months, mainly due to adjustments under various heads consequent on the introduction of the new Provincial Settlement. Provincial Funds were credited with 441 lakhs or £2,940,000 sterling, a decline of 31½ lakhs as compared with the receipts of 1906-07, owing to the adjustments mentioned; while the various District (Cess), Port and Municipal Funds covered by the expression Local Funds accounted for 204 lakhs or £1,360,000 sterling, the restriction of loan transactions by the Rangoon Port Trust being the chief cause of the deficiency of 14 lakhs compared with the total collections of the previous year. The gross expenditure under all heads fell from 730 to 728 lakhs or £4,853,000 sterling. Provincial expenditure rose by 18 lakhs to 471¾ lakhs, the most important increases being 4 lakhs under Police, a like amount under Political, and nearly 3 lakhs under Law and Justice, while Customs expenditure declined to the extent of 4 lakhs. On the other hand, expenditure from Excluded Local Funds fell off by 23½ lakhs owing to the contraction of capital outlay by the Rangoon Port Trust.

(*a*) *IMPERIAL REVENUE AND FINANCE.*

Land Revenue.

Land Revenue Receipts.

178. Receipts credited to the major head Land Revenue are divided equally between Imperial and Provincial Funds, but this equation is seriously interfered with owing to the fact that adjustments under the Provincial Settlement are made under this head. The gross land revenue of the Province increased to a small extent only from 386 to 387 lakhs. After adjustment of contributions the Imperial and Provincial shares amounted to 96 and 291 lakhs respectively. The Report on the Land Revenue Administration deals with the agricultural year which closed on the 30th June and in consequence the statistics of revenue there given differ from those exhibited in the Financial Accounts of the Province for the financial year ending on the 31st March. The great bulk of the revenue is, however, assessed and collected during the nine months common to both years, and in most years the explanations of variations given in the departmental report are equally applicable to the fluctuations shown in the accounts. The figures quoted in the remainder of this paragraph are taken from the Land Revenue Report and relate to the agricultural year. Statistics relating to *Ordinary Land Revenue*, that is, revenue levied on land under occupation in Lower Burma and under at least partly successful cultivation in Upper Burma have been given in paragraph 40, and it is unnecessary to repeat them here. Receipts from capitation-tax rose from 50·27 to 51·22 lakhs. A million and a quarter persons were assessed the increase of nearly 40,000 being well above the average of the past few years. There were increases of 1,000 assessees and over in nine districts. In Akyab the further large increase of 15,238 persons was due to the strict assessment of Chittagonian coolie immigrants. The number of households assessed to *thathameda* in Upper Burma amounted roughly to three-quarters of a million some 6,000 households in excess of the figure of 1906-07. Rates were, however, reduced in many districts and remissions were granted on a large scale owing to the unfavourable season, so that collections declined from 45½ to 37 lakhs. Receipts from land-rate in lieu of capitation-tax fell off from Rs. 96,453 to Rs. 95,162. The total Fishery Revenue, which amounted to 25½ lakhs, shows a decrease of half a lakh. In the Irrawaddy Division from which about half the revenue is derived, though the season was good there had been bad seasons from 1904-05 onwards, and the result was that there was less money at the auctions and some fishermen had taken to cultivation. In Upper Burma the season was bad. The river failed to rise to a height at all approaching its usual level, and many fisheries which are fed from the river were either not filled or ran dry before the fishery season. Miscellaneous Land Revenue

remained steady at something under 25 lakhs. The most important item represents fees, rents and royalties on petroleum, and the next important similar imposts on rubies. The Magwe and Myingyan oil fields were prosperous, but the Pakôkku fields were less successful. Payment of half the yearly rent payable by the Ruby Mines Company was postponed by order of the Secretary of State. The depressed state of the ruby market led to cessation of night working in four mines and to the entire closing of the Shwebôntha mine.

Canal (Navigation and Irrigation) Revenue.

179. Mention has been made in paragraphs 172 to 175 above of the amount of revenue derived from Canals and Irrigation works during the financial year 1907-08. Receipts from Canals used for navigation purposes only are wholly Provincial; revenue derived from the Minor Irrigation Works is included in the land revenue assessment and dealt with accordingly, while receipts from Major Irrigation Works are wholly Imperial.

Sources of Imperial Revenue other than the Land.

180. The few items of Customs Revenue, consisting mainly of overtime and holiday fees, which were formerly credited to Provincial Funds, have been imperialised since the revision of the Settlement and all customs receipts are now Imperial. During the financial year 1907-08 they amounted to 135 lakhs, or 11 lakhs in excess of the revenue of the previous twelve months. The increase was the result of the expansion of trade and of larger exports of rice to Europe on which duty is paid. **Customs.**

181. Receipts credited to the Major Head Opium, which is wholly Imperial, represent the cost of opium, at Rs. 8-8-0 a seer, supplied by the Government of Bengal for distribution to the licensed opium shops in Burma. They amounted to 5·36 lakhs as compared with 5·77 lakhs in the previous year. The reduction is attributed to the progressive restriction by Resident Excise Officers of the quantity sold to each purchaser to the amount which he requires for his personal use. **Opium.**

182. From the 1st April 1907 revenue falling under the Major Head Salt which had hitherto been divided equally between Imperial and Provincial funds became wholly Imperial. The total collections (Rs. 19,69,693) credited to this head during the calendar year 1907, with which the Report on the Administration of Salt Revenue deals, showed a large expansion amounting to Rs. 2,73,497. The increase of revenue is mainly accounted for by larger withdrawals from bond but the excise duty on local salt also rose by Rs. 35,000. The estimated consumption of salt in the Province amounted to 2,-70,295 maunds, of which local salt accounted for 784,721 maunds against 721,664 maunds in the previous year. The total consumption is much above that of 1906 (1,986,044 maunds) as well as of preceding years. No satisfactory explanation of this increase is forthcoming. The percentage of the consumption of local salt to the total consumption fell from over 36 to under 35. The reason for the exceptionally large imports is not clear, but that in their presence the output of local salt increased so much on the whole is a striking fact. Pending the completion of the special enquiry mentioned in the previous report no changes of importance were made in the policy regarding salt. The continuance in the Akyab, Sandoway and Thatôn Districts of the policy of concentrating manufacture and restricting the issue of licenses was sanctioned by the Local Government in July 1907. In accordance with that policy the names of two *kwins*, one in the Sandoway and one in the Thatôn District, in which no licenses had been taken out during 1906, were removed from the list of areas open to salt manufacture. A modification was made in the orders relating to the storage of salt in the vicinity of certain factories. The modification remedied an omission and prohibited, in the areas defined, the erection of unlicensed godowns whether erected by licensees or by others. It involved a change in the form of salt license. **Salt.**

CHAP. V.—REVENUE AND FINANCE.

The features of the statistics of imported salt were the very large amount brought into the Province despite the large quantity left in bond at the end of 1906, the much greater share in the imports of countries other than England and Germany, and the large stocks left in bond at the end of the year. Both Bassein and Akyab imported somewhat less salt than in the previous year. The increase was almost entirely in imports into Rangoon. The Chief Collector of Customs assigns as causes the general prosperity of the Province and the entry on the market of two new descriptions of salt from Egypt and Asiatic Turkey.

Excise.

183. From the 1st April 1907 Excise receipts were divided in equal shares between Imperial and Provincial Funds instead of as heretofore in the proportion of two shares to Imperial and one to Provincial. The gross excise revenue for the year 1907-08 amounted to Rs. 84,32,945 as compared with Rs. 82,38,959 in 1906-07. The increase was divided equally between Excise and Opium receipts. License fees for the sale of imported liquors and locally produced foreign spirit rose from Rs. 9,98,334 to Rs. 11,76,309. There was an increase of nearly two lakhs under this head in Rangoon Town, where the fees realised in 1906-07 were abnormally low. Duty on locally made spirit excised at the tariff rate shows some improvement with increased issues. The duty on distillery country spirit issued under the contract distillery system and the fees for sale of the spirit under this system give together an increase of half a lakh of rupees, as the system was in force for the latter part only of 1906-07, and the revenue from the outstills, which the contract system is intended to replace, decreased by some Rs. 30,000. There was an increase in the small duty obtained from Mandalay brewery beer, with increased issues, and with an increase from one to two annas per gallon in the rate of duty towards the end of the year. Toddy revenue fell from Rs. 6,77,597 to Rs. 5,82,075, and the receipts from other country fermented liquors were Rs. 43,000 below the figures of 1906-07. A combination amongst bidders in the Amherst District and the adverse effect of plague kept down the toddy revenue, and there was again a decline in fees paid for licenses for other country liquors in the Delta districts. The revenue derived from opium and other drugs rose from Rs. 46,59,763 to Rs. 47,64,624. The increase is chiefly in the duty on opium. There was a large decrease in issues of Government opium to the shops, but this was counterbalanced or nearly so by higher wholesale rates of issue. The increase in revenue resulted from the arrangement temporarily made by which foreign opium was purchased by Government and issued to the shops in the northern districts at fixed wholesale rates. Under this system the whole proceeds of sales of foreign opium to the shops were credited as revenue, the cost of purchase being charged to expenditure, whereas under the system of importation by licensees the duty on the imported opium forms the only revenue, apart from the shop license fees. The total expenditure debited to Excise decreased slightly from Rs. 15,59,987 in 1906-07 to Rs. 15,43,572 in 1907-08. No material changes have been made in the strength of excise establishments since the reduction in the Upper Burma staff in 1906-07, and there are no large variations in the figures for the two years under the different headings of expenditure. The year 1907-08 was not marked by any special development in the systems of Opium and Excise Administration in Burma. The arrangements for the vend of opium and the number of licensed opium shops have remained unchanged. There has been steady and continued improvement in the supervision exercised over sales by the Government Officers in the shops, and the quantity of opium sold has been brought into closer relationship with the requirements of authorized consumers. The restriction on sales has led to a decrease by 8 per cent. in sales of opium in Lower Burma as compared with the figures for 1906-07, and to a decrease of 20 per cent. in comparison with the figures for 1904-05. In the northern districts of Upper Burma illicit foreign opium has been less readily obtained and shop sales of foreign opium increased in consequence. Arrangements were made from the 1st July 1907 for the purchase of foreign opium by Government for issue to the licensed shops at which such opium is sold, but this measure has since been abandoned, and the system under which the opium is imported by the licensed vendors has been restored. The profit of licensed vendors in both Lower and Upper Burma were generally reduced at the beginning

of the year by the raising of the wholesale rates at which opium is issued to the vendors from the Treasury. The result has been to increase the opium revenue over the figures for the previous year in spite of the decrease in the quantity of opium sold. Opium continues to be smuggled into Burma in large quantities from other provinces of India, and a decrease in the total seizures of illicit opium indicates no diminution in the smuggling trade. A stronger excise staff at the ports and in the coast districts is needed to deal effectively with this trade, and proposals have already been made to this end. The growth in the cocaine habit in Rangoon and adjacent districts, in part it would seem, as a substitute for opium, is a disquieting feature of the year.

Stamps.

184. From the 1st April 1907 the Imperial share of receipts falling under the Major Head Stamps has been raised from one-fourth to one-half. They do not include postage and telegraph stamps. The gross stamp revenue in 1907-08, amounting to nearly 40½ lakhs, showed an increase of some Rs. 64,000 compared with an expansion of over two lakhs in the preceding year and of over 4 lakhs in 1905-06. The causes of this slower rate of expansion are sufficiently plain. The creation of a separate Judicial Service in 1905 stimulated the revenue derived from Court-fee stamps; later the spread of plague in the Province and floods or unfavourable agricultural seasons especially in Lower Burma in 1905-06 and 1906-07 and in 1907-08 in Upper Burma exercised a depressing influence. These factors explain a greater decline in the revenue from non-judicial stamps than from judicial. Charges debitable to stamps, 1¼ lakhs, were rather less than in the previous year. The cost of general supervision amounted to Rs. 23,776, practically the same figure as in 1906-07, and the cost of stamp papers supplied by the Central Depôt rose from Rs. 28,126 to Rs. 32,400. The steady growth of revenue from Judicial stamps received a check in the year of report as receipts under this head, 24¾ lakhs, declined slightly. Stamped copy sheets are mainly used in connection with appeals and the consumption of these sheets increased somewhat notwithstanding the decline in receipts from Court-fees. The revenue from non-judicial stamps amounted to 13¼ lakhs and shows an increase of about three-quarters of a lakh over the total of 1906-07. The principal items are impressed sheets and impressed labels contributing 7½ and 4½ lakhs respectively, and the increase was common to both items. The number of stamp vendors and the amount of commission drawn by them, Rs. 44,891, both increased to a small extent, but the appointment of more vendors seems to be needed. The number of documents impounded by Civil Courts and by Collectors fell off slightly and the amount of duty and penalty realised decreased considerably owing to the receipts of the previous year having been swollen by exceptional windfalls. Prosecutions for offences against the stamp law were more numerous and the amount of fines imposed increased. Greater energy was shown by Collectors in taking action to test the value of estates for which applications for probate and letters of administration were put in and deficit Court-fees amounting to Rs. 10,716 were realised. Legal business and consequently the purchase of stamps is more and more attracted to Rangoon. Advocates from Rangoon are employed to appear in many cases in the Courts outside, or to draw deeds or make applications on behalf of clients who live outside.

Assessed Taxes.

185. The Income-tax Act, though in force in the whole of Burma, was operative during the year only in Lower Burma and in Mandalay town. With effect from the 1st February 1907 a new Income-tax Collectorate was formed by the splitting up of the Pegu Subdivision into two subdivisions, one retaining the old name, the other being nominated Dabein. There was practically no change in the method of assessment or in the agency employed in the administration of the Act. Some improvement was however effected in the work of assessment. Receipts collected under the Act are shared equally between Imperial and Provincial Funds. The net collections rose from 15·42 lakhs to 17·29 lakhs, but a comparison of the annual figures does not reveal a steady rate of progression everywhere. The falling off in certain districts indicates a set back in material prosperity owing to plague,

CHAP. V.—REVENUE AND FINANCE.

to the collapse of speculation in land, or to trade losses. The number of companies whose profits were assessable increased from 62 to 63, and collections from 2·36 to 3·08 lakhs. One company in Mandalay was not assessed as its accounts showed no profits for the year. The value of securities held in the Province, the interest of which is liabl to taxation, showed a slight reduction after the abnormal rise of the previous year. There was a satisfactory increas of Rs. 72,114 under the head of "Other Sources," that is, chiefly, assessments on private persons. Expenditure amounted to Rs. 40,459, somewhat less than in the year 1906-07. A considerable amount of income-tax work is done by officers whose salaries are charged to Land Revenue.

Forests.

186. The gross receipts of the Forest Department during the forest year ending on the 30th June 1908 amounted to 88·33 lakhs, nearly two lakhs in excess of the total of the previous twelve months. The income from timber and other produce extracted by Government agency shows a small further decline of about half a lakh, but enhanced receipts to the extent of nearly 2½ lakhs were derived from other sources. These changes are chiefly due to the further extension of the policy of reducing the area worked by the department and of throwing open to working under the purchase contract system forests which have hitherto been worked departmentally. The expenditure incurred on the operations of the Forest Department declined slightly from 36·34 to 35·59 lakhs and the surplus revenue shared equally between Imperial and Provincial Funds rose from 50·04 to 52·74 lakhs. The arrested expansion of expenditure is due to the the policy referred to.

Imperial Expenditure.

187. Except under the head of Land Revenue, where expenditure is debited entirely to Provincial Funds, Imperial and Provincial Funds contribute to the charges incurred under the various budget heads in the same proportion as they benefit by the revenue accruing thereunder and these contributions form the bulk of the Imperial expenditure, so far as it is dealt with in this report. During the financial year ending March 1908 the total Imperial expenditure rose from 57·24 to 58·76 lakhs. The principal variations were due to changes of classification consequent on the revision of the Settlement and have been mentioned in paragraph 176. Apart from changes of classification nearly two lakhs less were spent on Military Works, Customs expenditure increased owing to improvement of the service, and Irrigation Works accounted for nearly a lakh in excess of the figure of 1906-07.

(*b*) *REVENUE AND FINANCE OTHER THAN IMPERIAL.*

Provincial Revenues.

Provincial Receipts.

188. Provincial Funds derive the great bulk of their receipts from the heads which are shared with Imperial Funds. The revenue under the remaining heads, which are either entirely Provincial or are shared with Local Funds, amounted to only 33⅓ lakhs in the year 1907-08, and fluctuations under these heads do not materially affect the Provincial Budget. The total Provincial Receipts for the year of report amounted to 441 lakhs, showing a decrease of 31½ lakhs, which was principally accounted for by changes of classification consequent on revision of the Settlement. Explanations for these variations have been given in the preceding paragraphs relating to Imperial Receipts under the same heads. Under *Law and Justice—Courts of Law*, the decrease of Rs. 41,000 was due to a falling off in the amount of fines levied in Criminal cases. A reduction in the rate of Burma Coast Light dues was the cause of a decline of Rs. 32,000 under *Ports and Pilotage*. The decrease under *Miscellaneous* amounting to Rs. 47,000 was chiefly due to the recovery in the previous year of a special contribution made to the Moulmein Municipality in 1905-06. Under *Contributions* the decrease of five lakhs was due to the discontinuance of the payment of contributions by District

Cess Funds towards the cost of revenue collections by village headmen. The increase of Rs. 31,000 under *Interest* was the direct result of recovery of interest from the Akyab Municipality towards the Government loan which was drawn in instalments, and of larger recovery of interest from advances to cultivators. A larger demand for jail-made articles is responsible for improvements under *Jails* to the extent of half a lakh. The increase of Rs. 27,000 under *Police* was mainly due to larger receipts under *Fines and Forfeitures*. A large expansion amounting to nearly 10 lakhs under *Minor Works and Navigation* was due to the share of land revenue and water-rate on Minor Irrigation Works in Upper Burma having been brought on to the books of the Public Works Department as direct revenue in accordance with the orders of the Government of India.

Provincial Expenditure.

189. The total expenditure met out of Provincial Funds during the financial year 1907-08 amounted to 471¾ lakhs, exceeding the income of the year by over 30 lakhs and the expenditure of the previous year by 18 lakhs. The increase of Rs. 1,86,000 under *Land Revenue* was due to the appointment of a separate Deputy Commissioner and his establishment for Rangoon Town, to the general growth of expenditure under travelling allowances and contingencies, and to heavy outlay on account of Supplementary and Town Surveys. The increases under *Excise*, *Registration* and *Political*, and the decreases under *Stamps* and *Customs* were chiefly due to changes of classification as already explained. Under *General Administration* a rise of Rs. 1,27,000 was due to the fact that a Commissioner and two officers in the Secretariat were on special duty, and to the increase of the Financial Commissioner's and Secretariat establishments. Under *Courts of Law* the main causes of the expansion of Rs. 2,89,000 were the reorganization of the Subordinate Judicial Service with establishments, appointment of an additional Judge for the Chief Court for part of the year, heavy outlay on diet and travelling allowance of witnesses and on fees to Government Pleaders, and payment of certain special refunds. The increase of Rs. 54,000 under *Jails* was due to the revision of the Inspector-General of Prisons' Office establishment, to increased rate of pay sanctioned for Jailors throughout the year, to larger outlay on dietary charges, and to larger purchase of raw materials. Enhanced expenditure on *Police* amounting to Rs. 4,41,000 was chiefly due to the gradual introduction of the Police Commission reforms, and to a larger expenditure on arms and allowances and on purchase and carriage of food supplies. The increase of Rs. 1,56,000 under *Ports and Pilotage* resulted from the payment of privilege leave allowance of the Principal Port Officer, from the entertainment of the First Assistant Port Officer throughout the year, from larger payments for freight, shipping and landing charges, from the purchase of stock towards the close of the year, and from an enhanced price of coal. Larger expenditure on *Education* to the extent of Rs. 1,20,000 was chiefly caused by the appointment of an Assistant to the Director of Public Instruction, the opening of new schools and larger payments of salary grants to certificated teachers. The expansion of medical charges by Rs. 1,87,000 was the outcome of the establishment of new hospitals, enhancement of Municipal taxes on the Rangoon General Hospital buildings, larger expenditure on equipment grants and grants to hospitals and dispensaries, the transfer of Political charges to this head and heavy outlay on plague preventive measures undertaken by Government and local bodies.

Local Funds.

Incorporated Local Funds.

190. Incorporated Local Funds in Burma in the year 1907-08 consisted of 20 District Cess Funds in Lower Burma, 16 District Funds in Upper Burma, and the Burma Steam Boiler Inspection Fund. No change took place in the number of District Cess Funds during the year. The aggregate balance at credit of these funds on the 1st April 1907 stood at Rs. 15,22,609. The total receipts during the year amounted to Rs. 32,49,165, and the total expenditure to Rs. 24,37,246, leaving a closing balance of Rs. 23,34,528 on the 31st March 1908, being Rs. 8,11,919 higher than the opening balance. There was a net increase of Rs. 2,49,857 in receipts in 1907-08 as compared with the previous year. This

CHAP. V.—REVENUE AND FINANCE.

was due chiefly to increases under Provincial Rates, Miscellaneous and Civil Works by Civil Officers, counterbalanced by a decrease mainly under Contribution from Provincial to Local. The net decrease in expenditure as compared with the previous year was Rs. 3,20,508. The decreases occurred chiefly under General Adminstration and Contribution from Local to Provincial, while there were increases under Provincial Rates, Education, Miscellaneous, Civil Works by Public Works Officers, and Civil Works by Civil Officers. The decrease under General Administration was due to the discontinuance of the levy of fees realized from District Cess Funds for audit of their accounts under orders of the Government of India. Under Contribution from Local to Provincial the decrease was due to the District Cess Funds having been relieved, in accordance with the terms of the Provincial Settlement, of the payment of contributions towards the cost of revenue collections by village headmen. The number of District Funds was the same as in the previous year, namely, 16. The aggregate balance at credit of the Funds on the 1st April 1907 was Rs. 2,59,379; the total receipts of the year amounted to Rs. 7,00,903, and the total expenditure to Rs. 5,97,047, leaving a closing balance of Rs. 3,63,235, or Rs. 1,03,856 more than the opening balance. The accounts show an increase of Rs. 1,34,882 in receipts as compared with the previous year, resulting from increases mainly under Police, Miscellaneous and Contribution from Provincial to Local. On the expenditure side there was a net increase of Rs. 12,897, as compared with the previous year, which occurred chiefly under Civil Works by Public Works and Civil Officers in consequence of more funds having been available for outlay on public works purposes. The Burma Steam Boiler Inspection Fund closed with a credit balance of Rs. 30,687 on the 31st March 1908, the receipts of the year 1907-08 having been Rs. 43,929, and expenditure Rs. 26,258.

Excluded Local Funds.

191. In the category of Excluded Local Funds there were in the year of report 7 Cantonment Funds, 16 Town Funds, the Rangoon Port Trust and 6 Minor Port Funds, 4 Pilot Funds, the Rangoon Police Reward Fund and the Educational Syndicate Fund. The total income of all the cantonments excluding debt heads amounted to Rs. 2,16,760 and the total expenditure to Rs. 1,72,123. The corresponding figures for 1906-07 were Rs. 1,80,825 and Rs. 1,55,867 respectively, so that there was an increase of Rs. 35,935 and Rs. 16,256 under income and expenditure respectively during the year under review. Out of the sixteen Town Funds existing at the end of the previous year, one, the Lemyethna Town Fund, was abolished, leaving fifteen Town Funds at the end of the year under report. The total income of the Funds shows an increase of Rs. 78,342 as compared with that of the previous year, the figures being Rs. 3,87,651 for 1906-07 and Rs. 4,65,993 for 1907-08. The expenditure also increased by Rs. 13,598, the total for 1906-07 being Rs. 4,14,013, and that for 1907-08, Rs. 4,27,611. The aggregate balance at credit of the several funds rose from Rs. 1,38,862 at the commencement of the year to Rs. 1,77,244 at the close of the year. Exclusive of the Rangoon Port Trust, the affairs of which are dealt with separately in paragraphs 109 and 110, the receipts of the six minor Port Funds amounted to 3·77 lakhs and the expenditure to 3·28 lakhs. At the end of the year there was an aggregate balance of 2·43 lakhs. The number of Pilot Funds was four. The pilotage receipts are credited to these funds from which the earnings of pilots, the cost of maintenance of pilot vessels, and other expenses are disbursed. The receipts of the Rangoon Police Reward Fund consisting of fines recovered from policemen and undisbursed rewards amounted to Rs. 1,086 as against Rs. 1,075 in the previous year. The fund is utilized in rewarding policemen for good conduct, for arresting criminals, and obtaining convictions, etc. The expenditure on this account amounted to Rs. 881 during the year under report as against Rs. 1,092 in the previous year. The total income of the Educational Syndicate Fund amounted to Rs. 54,145, of which Rs. 16,500 was on account of contributions from Government, and Rs 500 is contributed by the Rangoon Municipality towards the Bernard Free Library. The remaining income consisted chiefly of fees for examinations held by the Educational Syndicate. The balance at the end of the year was Rs. 28,344.

Road and Education Cesses.

192. No special cesses are levied in Burma for the construction and maintenance of roads and the provision of education but the Ten per cent. Cess levied on Land Revenue in Lower Burma is partly devoted to education and local public works. CHAP. V.—REVENUE AND FINANCE.

Municipal Revenues.

193. The Rangoon Municipality does not bank with Government and its transactions are not therefore shown in the Government accounts. The gross income for the year was Rs. 51,53,562. Omitting loans, advances, deposits and adjustments under stock account from these figures, the balance, Rs. 34,99,091, represents the ordinary income for 1907-08 as against Rs. 30,03,564 for the previous year. The income for 1906-07 included a sum of Rs. 1,58,719, on account of grants received from Government towards expenditure incurred by the Municipality in connection with the Hlagwa Water Works and plague operations. The receipts for 1907-08 include larger realisations from Municipal taxes to the extent of Rs. 7,11,214, due to enhanced Municipal scavenging and water taxes being realized for a whole year, and also to the recovery of Rs. 1,72,680 on account of arrears of taxes on Government buildings for 1906-07. The ordinary expenditure for the year, excluding items under deposits and advances and charges for works paid for from loans, was Rs. 32,76,187 as against Rs. 29,67,956 in 1906-07. The large difference is partly due to the increased cost for maintenance and improvements of the water-supply and drainage systems, and to the grant for roads in 1907-03 being Rs. 2,21,166 more than in the previous year. Besides this the loan charges and the expenditure on plague increased by Rs. 86,624 and Rs. 59,008, respectively. On the 1st April 1907, the total loans outstanding amounted to Rs. 1,22,50,500. During the year Rs. 57,500 was repaid as principal on account of the 1887 loan of 23 lakhs, and a fresh loan of Rs. 6,94,000 was raised. The Municipality was, therefore, indebted to the extent of Rs. 1,28,87,000 on the 31st March 1908. Of the sum outstanding Rs. 18,00,000 represents loans raised on account of reclamation works. Rangoon Municipality.

194. With the exception of Moulmein all the 43 minor Municipalities in the Province bank with Government. Exclusive of debt accounts amounting to Rs. 4,01,154, and of the opening balance of Rs. 8,59,909, the aggregate income of all the minor Municipalities was Rs. 33,36,901 as compared with Rs. 30,42,039 in the previous year. The ordinary expenditure was Rs. 35,49,678, showing an increase of Rs. 2,40,823 over the figures for 1906-07. At the end of the year there was a closing balance of Rs. 7,64,117. Municipal Rates and Taxes produced Rs. 13,60,810 as compared with Rs. 11,68,011 in 1906-07. The largest increase, Rs. 85,853, occurred in Mandalay. Realizations under Special Acts produced Rs. 35,037 as compared with Rs. 34,035 in the previous year. The total revenue from other sources of income amounted to Rs. 15,33,763 as compared with Rs. 15,30,033 in 1906-07. The amount received in the form of grants and contributions from all sources during the year was Rs. 3,77,719 as compared with Rs. 2,77,879 in 1906-07. Of this sum Rs. 1,48,430 was contributed by Government in aid of measures for the prevention and suppression of plague. Other contributions from Provincial funds included a grant of Rs. 40,000 to Moulmein for general purposes, and Rs. 50,000 to Mandalay towards expenditure on Public Works. The expenditure on General Administration amounted to Rs. 3,47,791 as compared with Rs. 3,30,482 in 1906-07. Expenditure on Public Safety shows a slight increase from Rs. 2,23,680 to Rs. 2 24,385. Of this total Rs. 2,01,325 was incurred on street lighting. The expenditure on Hospitals and Dispensaries is shown as Rs. 7,17,305 as compared with Rs. 4,35,326 in 1906-07. But the actual increase of expenditure is not so great as the figures appear to show as in some cases plague charges have again been entered under this head. Conservancy charges rose from Rs. 5,80,653 to Rs. 6,43,721. The expenditure on markets amounted to Rs. 2,19,494 as compared with Rs. 3,06,083 in Other Municipalities.

CHAP. V.—REVENUE AND FINANCE.

1906-07. The effect of plague on the finances of Municipalities was again noticeable in the decrease of expenditure on Public Works. The liabilities on account of interest on loans during the year under review amounted to Rs. 1,13,846 as compared with Rs. 1,02,646 in 1906-07. The largest loans made by Government during the year were loans of Rs. 80,000 to Henzada and Rs. 70,000 to Akyab. Loans were also granted to Myanaung, Toungoo and Shwebo.

Other Funds.

195. As in the previous years, only one Trust Fund was in existence, namely, that of the Official Assignee. It does not bank with the Government and its transactions are not shown in the Government accounts. There were four Educational Endowment Funds, namely, Jardine, Maung Ohn Ghine, Renaung and Copleston Funds. These funds do not bank with Government treasuries and their accounts are not shown in the Government books.

Paper Currency.

196. The returns for the year 1907-08 show a falling off in the circulation of currency notes. The total value of the notes in circulation declined from 271 to 260 lakhs. The local preference for notes of Rs. 10 and Rs. 100 continues. There was a large increase in the circulation of notes of Rs. 10, while the decrease in the circulation of notes of Rs. 100 was accidental and due chiefly to 25,785 notes of this denomination being included in the transfers made during March 1908 from the Government account at the Bank of Bengal, Rangoon, to the Currency Office, Rangoon. The circulation of notes of Rs. 50 is gradually decreasing while that of 5 and 20-rupee notes is normal. There was a slight drop in the circulation of notes of Rs. 500 and Rs. 1,000, but taking all the three higher values (500, 1,000 and 10,000) together, the value of the circulation on 31st March 1908 was practically the same as on the same date in 1907. The circulation of these notes of large denomination depends mainly on the requirements of the Local Banks which, during the stock season, tender their unemployed coin and small notes at the counter of the Currency Office in exchange for higher value notes.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

REFERENCES—

Report on the Sanitary Administration of Burma for the year 1907.
Triennial Report on the Hospitals and Dispensaries of Burma for the years 1905 to 1907.
Report on the working of the Government Medical School, Rangoon, for the year 1907.
Note on the Lunatic Asylums in Burma for the year 1907.
Triennial Report on Vaccination in Burma for the years 1905-06 to 1907-08.
Second issue of the Statistics of British India for 1907-08 and preceding years.

Births and Deaths.

197. The total population of the Province, subject to registration of Births and Deaths, was computed at the census of 1901 at 8,485,980, and is estimated at 9,731,233 on March 1st, 1908. Commencing from 1st January 1907 returns of births were received from certain rural areas in Upper Burma, such records having been previously available for the Town populations only. Birth statistics of the population of the greater part of the Province are thus for the first time available. The work of verification is probably very perfunctory in a large number of cases and the results are, in consequence, open to doubt. Out of 29,395 villages and towns under registration, the vital records of 17,679 were scrutinised by inspecting officers and 162,766 entries (nearly one-third of the total for the whole province) were subjected to verification. Two hundred and seventy-eight thousand five hundred and thirty-three births were registered, giving a birth rate for the whole province of 32·82 per mille. The ratio for Lower Burma was 32·65 and for Upper Burma 33·14. The male births exceeded the female by 8,755, 100 males having been born to every 93·9 females. In Lower Burma a total population of 715,518 residents in towns exhibits a birth-rate of only 25·10 while the 17 towns with 329,769 residents in Upper Burma show a birth-rate of 32·16. The low urban birth-rate in Lower Burma is however dependent upon the enormous disproportion of the sexes in the three biggest towns, Rangoon, Moulmein and Akyab. If the returns of these three towns be omitted the birth-rate for 37 Lower Burma towns becomes 31·88. In the whole area under registration the male population exceeds the female by about 200,000. But this condition is due entirely to the excess of males over females in the foreign population. The greater portion of the foreign element is confined to Lower Burma and materially affects the sex and race distribution of the population in the rural areas of many districts, and in all the largest towns, influencing in consequence the birth and death-rates. The following districts (rural areas) show a decline in the birth-rate when compared with the previous year's returns :—Sandoway, Hanthawaddy, Prome, Ma-ubin, Pyapôn, Mergui and Toungoo. An increase in the birth-rate is observed in Akyab, Tharrawaddy, Henzada, Myaungmya, Amherst, Tavoy and Thatôn. The death-rate for the whole Province was 26·60, being 26·84 for Lower Burma and 26·13 for Upper Burma. The death-rate for rural areas in Lower Burma was 24·58 and was higher than the five years' average in all districts except Bassein, Myaungmya, Ma-ubin and Thayetmyo. In Upper Burma rural areas the death-rate (24·40) was nearly 5 per mille above the mean of the previous five years. In the towns of Lower Burma the average death-rate was 42·18 while in Upper Burma it was 39·69. Great variation in the death-rates of different towns is exhibited, thus Akyab (30·33), Rangoon (45·00), Pegu (65·10), Bassein (63·21), Moulmein (46·21), and Mergui (48·22) may be contrasted with Sandoway (17·93) and Tavoy (26·06). The infantile death-rate for the whole Province was 198·50. In districts including towns it was for Lower Burma 182·91 and for Upper Burma 227·81. In towns, Lower Burma gives a ratio of 247·15 against 322·27 for Upper Burma. The higher rate for Upper Burma may be very probably due to defective registration of births in the rural areas. The ratio for towns in 1907 shows a decrease on 1906 for Lower Burma of only 2·12 per mille, but for Upper Burma the decrease amounts

Number of births and deaths.

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

to 57·64 per mille, a definite improvement. The death-rate of male infants for the whole Province is 217·50 and of female infants 178·27, a difference in favour of the females of 39·23 per mille. In Rangoon the infantile death-rate (348·93) is excessively high, and though it would probably be reduced by better registration of births, it indicates clearly the need for improved sanitary administration in that city. Akyab returns a death-rate of 324·10 per mille of births, Prome and Bassein over 290·00 and Mandalay 360·78. The headquarters branch of the Society for the Prevention of Infantile Mortality held several meetings at Rangoon during the year. This Society received a grant of land near Hmawbi from Government during the year for the purpose of pasturing cattle, with a view to the establishment of a milk depôt for infants. The Municipal Committee of Pakôkku town initiated during 1907 a scheme of milk depôts in the interests of the infant population, and it is to be hoped that their example will be emulated by other public bodies in the Province. No connection can be traced between the price of food-grains in any area and the birth and death-rates.

Causes of death.

198. The total of 225,692 deaths that occurred in the Province in 1907 is distributed as follows:—

Cholera	8,378
Fevers	79,245
Small-pox	2,882
Respiratory diseases	5,781
Dysentery and Diarrhœa	10,322
Wounding and accident	1,175
Snake-bite and wild beasts	1,660
Suicide	130
Plague	9,249
All other causes	106,870

Of these causes deaths from cholera, fever, plague and "All other causes" showed an increase as compared with the returns of the previous year. Cholera was most prevalent in the Pegu and Irrawaddy Divisions in March, April and May, but outbreaks recurred in January and December. In Arakan, August to December, and in Tenasserim, February to December, were the months of greatest prevalence. In Rangoon the disease was practically confined to dwellers on or by the banks of the river and main creeks, in the areas not provided with a pipe water supply or with an efficient conservancy system. In the case of the boating population the evidence appears to be overwhelming for the dissemination of infection through the use of the river water. The remedy is to be found in providing an ample supply of fresh water for all purposes, in introducing an efficient system of conservancy in the riparian quarters, and in preventing by legislation and an effective police organization, the pollution of the shores of the rivers and creeks. A serious epidemic originated at a *Pôngyi-byan* at Tharawa, and spread to the Henzada side of the Irrawaddy and to many villages in the Tharrawaddy District. Two hundred and thirty-four deaths in 57 villages of the Tharrawaddy District and 150 deaths in 17 villages of the Henzada District, besides 214 deaths in Henzada town, were traced to this origin; a total recorded mortality of 598. Visitors to the *Pôngyi-byan* were undoubtedly infected through the pollution of the pools from which they obtained drinking water. Fevers were responsible for more than a third of the total mortality of the Province. Deaths from malarial fevers are included under this head, but what proportion of the mortality is due to malaria there is no certain means of ascertaining. The fever death-rate of 16·70 in the Akyab District, that of 14·29 in Mergui and 14·12 in Henzada are perhaps due to this cause, but in some other districts and towns, there appears ample evidence that the ratio is partly made up of undiagnosed deaths from plague and other febrile diseases. Enteric fever appears to be more widely distributed than was formerly supposed and it is known to be common in Rangoon, Moulmein and Myitkyina. While in Lower Burma 6,371 fewer deaths from small-pox occurred than in 1906, in Upper Burma there was an increase of 713. A special enquiry was made into the Pakôkku outbreak by Hospital Assistant Maung Aung Pru, who travelled through the district and his report shows that the infection was introduced in the preceding year, having been prevalent in the Myaing township as the result of importation from Henzada in February 1906.

It appears probable that it was conveyed to the other townships through the medium of increased communication due to the Shwepaunglaing pagoda festival which took place near Pauk about the commencement of April 1907, and was widely attended by people from all parts of the district, and at which several cases of small-pox are known to have occurred. The threatened population had freely employed Burmese "Sayas" to inoculate their children. Tubercular lung disease which is increasing in the larger towns, is undoubtedly associated with the congestion of population and the enforced indoor life led by a growing proportion of the urban population, as well as with the defective ventilation and generally insanitary construction of town houses. In the towns, owing to the increased attention paid to diagnosis in connection with the detection of plague, a large number of deaths which would previously have been registered as due to "Fevers" have since 1905 been more correctly credited to the account of dysentery and diarrhœa. The total number of deaths registered from plague in the Province in 1907 was 9,249, an increase of 612 on the plague mortality of 1906. This increase was confined to Lower Burma, there being a decrease of 137 in Upper Burma. In Burma the epidemic of plague has so far affected the larger towns without spreading to any extent to villages in rural areas. Thus while a plague mortality of 620 in Lower Burma and in Upper Burma 175 is recorded in rural areas, 5,352 deaths occurred in Lower Burma towns, and 3,102 in Upper Burma towns from this disease. As in previous years the Arakan Division remained free from indigenous plague, a single imported case being registered at Akyab. Rangoon with 2,114 deaths shows a decrease of 860, Moulmein records an increase of 287, and Mandalay an increase of 310 deaths from plague over the figures of 1906. A total of 7,544,645 rats was reported to have been destroyed at a cost of over two lakhs of rupees. Eighteen thousand one hundred and sixty-four persons were inoculated in the Province with Haffkine's prophylactic fluid during 1907. Of these 60 persons subsequently contracted plague, and 43 died. The operation was not popular in Rangoon or Mandalay. In the Henzada District 6,193 operations were performed; in the Amherst District 4,652, and in the Yamèthin District 2,551. In accordance with the recommendations of the last Plague Commission, the policy of the Local Government as regards the measures for combating the epidemic was, as indicated in General Department Circular No. 80 of 1907, slightly modified in adaptation to the accepted results of scientific investigation. The importance of rat extermination was given greater prominence. Every effort was made to impress upon the native population the value of inoculation with Haffkine's prophylactic as a safeguard against plague, and Medical Officers well conversant with the Burmese language were specially detailed to infected areas to afford the people all possible opportunities of obtaining protection by undergoing this operation.

Emigration and Immigration.

199. The great majority of immigrants and emigrants to and from Burma pass through the Port of Rangoon. The second port of entry is Akyab, but here the movement is of a local character, and adapted to the local demand for labour. The returns for Rangoon for 1907 show a decrease of 52,040 immigrants and 20,002 emigrants as compared with the previous year's figures, but the figures are higher than in any year preceding 1906. The excess of immigrants over emigrants in Rangoon was 12,735 being 32,038 less than in 1906. This excess is the lowest recorded during the last six years. At Akyab the excess of emigrants over immigrants was 7,495. The total increase to the population of the Province in 1907 by immigration amounted to only 3,520, as compared with 40,718 in the previous year.

Medical Relief.

200. There were 227 Hospitals and Dispensaries open in the Province at the end of 1907 as compared with 213 in 1906. Of the 17 institutions opened

Hospitals and Dispensaries.

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

during 1907, that known as the Cantonment Hospital was established at the Rangoon General Hospital on the 1st April 1907, under the provisions of the Cantonment Code, and separate returns are obtained from it. The dispensary established at Kemmendine supplies the wants of the residents of this suburb of Rangoon which is over three miles distant from the nearest charitable dispensary. Pazundaung, another suburb of Rangoon, was given a dispensary for the exclusive treatment of women and children under the charge of a female doctor. A similar dispensary in charge of a female doctor was also opened at Mandalay. Six Local Fund Institutions were opened, all in Lower Burma, during 1907, and are maintained from District Cess Funds. Efforts to establish dispensaries in the more remote and isolated localities was greatly hindered owing to difficulties in obtaining Hospital Assistants. Mansfield's oil-gas installations sanctioned for the operation rooms at the Bassein and Prome Civil Hospitals have lately been completed. A complete scheme for provincial laboratories has been submitted to Government for approval. With funds placed by Government at the disposal of the Inspector-General of Civil Hospitals, an experimental laboratory was started at Maymyo and handed over to the control of the Sanitary Commissioner for the cultivation of Danysz virus and other work connected with plague preventive measures. Buildings of importance completed in 1907 and nearing completion in 1908 are the Special Nursing Wards for the New General Hospital, at Rangoon, the building for the Shore Dispensary at Mandalay, the Princess of Wales' Ophthalmic Ward at Mandalay, improvements to the Maymyo Hospital, the Lady Minto's Nurses' quarters at Rangoon and Maymyo, and the Out-door Department of the New General Hospital, Rangoon.

Attendance.

201. The total attendance of in and out-patients for 1907, excluding the figures for special and Railway Institutions was 1,043,360 or 27,040 more than in the previous year. There has been an increase of 30,740 in the number of out-patients treated which more than counterbalanced a decrease of 3,700 in the number of in-patients and accounted for a net increase of 27,040 in the total attendance of in and out-patients. The number of female in-door patients increased from 5,263 in 1906 to 5,303 in 1907, while the number of male adults decreased from 42,703 in 1906 to 39,133 in 1907. The decrease in male adults was due to the stricter enforcement of orders prohibiting the detention for treatment at Rangoon of out-going passengers for diseases other than suspected plague and other infectious diseases, to the cessation of the small-pox epidemics at Rangoon and to the more rare occurrence of panics due to plague. Every effort has been made to provide further accommodation for female in-patients. The total number of beds available at the end of 1907 was 3,302 for males and 968 for females. The attendance by classes for the three years ending 1907 as compared with the corresponding period ending 1904 shows an increase in all classes except the Burmese. The decline in 1907 among Burmese is chiefly noticeable in Kyaukpyu, Pegu, Prome, Henzada, Sagaing, Magwe, Kyauksè and Myingyan. The Civil Surgeon, Kyaukpyu, attributes the decrease to an outbreak of cholera and to small-pox in various places preventing district people from visiting the town. At Pegu the decrease is attributed to the opening of two new hospitals in the district. In Prome, Sagaing and Kyauksè plague scares are said to be responsible and at Henzada frequent change of Hospital Assistants during the year greatly influenced the attendance. Efforts made to provide better accommodation, to secure the separation of the sexes to a greater extent, and to provide female attendants on patients have met with some success. There has been a general increase under all the principal diseases treated during the year, except small-pox, worms, rheumatic affections, respiratory affections, ulcers, dyspepsia, diarrhœa and dysentery. Malarial fevers contributed the largest number of patients. Sixteen thousand two hundred and ninety-one more cases of malaria were returned in 1907 than in 1906. The Hospitals and Dispensaries in the Rangoon Town, Pyapôn, Thatôn, and Upper Chindwin Districts and the Chin Hills each show increases of over 1,000, while the Pakôkku, Bhamo, Thayetmyo, Mergui, Amherst, Ma-ubin, Tharrawaddy and Hanthawaddy Institutions return increases of between 500 and 1,000 in the number of

patients treated for malarial fevers in 1907 over the number treated during 1906. It is not improbable that a large proportion of cases in which the fever is but a symptom have been registered under Malaria. Much has been done towards securing better registration of disease-causes, but still much more remains to be effected. Venereal diseases show a steady increase year by year, the increase in 1907 being 2,219 over the total treated in 1906. The number of patients treated for tubercular diseases in 1907 exceeded the figure of 1906 by 915. Mandalay District alone is responsible for no less than 728 out of a total of 2,094 patients treated for tubercular diseases in 1907. Leaflets in English, Burmese and various vernaculars of India indicating briefly precautions to be taken in treating and preventing the spread of venereal and tubercular diseases were prepared and distributed from all Hospitals and Dispensaries. Excellent surgical work was done during the year, the total number of operations performed during 1907 being 27,206 against 25,893 in 1906. The Hospitals in which most surgical work was performed during 1907 are Rangoon, Mandalay, Moulmein, Thayetmyo and Bassein. At the General Hospital, Rangoon, the total number of operations performed during 1907 was 4,018 against 3,053 in 1906. To supply the want of instruments and appliances in accordance with modern demands of asepticism, special equipment was obtained through the Secretary of State for India, and the Hospitals at Akyab, Prome, Pegu, Mergui, Henzada, Toungoo, Thayetmyo, Ma-ubin, Sagaing, Magwe, Myingyan, Shwebo, Yamèthin, Minbu, Mônywa, Meiktila and Myitkyina have been suitably equipped. Medical expenditure under all heads amounted during 1907 to Rs. 22,47,407 against Rs. 10,26,752 (exclusive of investments) in 1906. Excluding a sum of Rs. 10,63,832 being the expenditure on the New General Hospital, Rangoon, the actual excess over the preceding year, *viz.*, Rs. 1,56,823 is accounted for by increase in the number of dispensaries, promotions of officers and subordinates and the larger number of patients treated during 1907. The expenditure on diet fell from Rs. 1,74,964 in 1906 to Rs. 1,57,601 in 1907 while the expenditure under miscellaneous charges has increased from Rs. 1,35,521 in 1906 to Rs. 2,25,065 in 1907. This large increase during 1907 is due to expenditure on equipment obtained for the New General Hospital and increased Municipal taxation in Rangoon. During 1907, two appointments for superior grades of Medical Officers were added to the cadre, *viz.*, (1) a Sanitary Commissioner for the Province and (2) a second class Civil Surgeoncy for the Hanthawaddy District. At the close of the year 1907, there were 17 Military Assistant Surgeons on the rolls for Civil employment besides 11 lent temporarily for plague duty, and two out of six promised to replace temporarily Civil Medical Officers nominated especially for anti-plague inoculation work. In order to render the service of Civil Assistant Surgeons more attractive special allowances were sanctioned for certain appointments. The Burma allowance which stood formerly at Rs. 50 fixed for all grades was increased. The service of Civil Hospital Assistants continues to be very greatly undermanned, and in spite of various attempts to carry out special recruitment and the offer of special terms of salary for temporary employment, it has not been possible to bring the staff to anything like the sanctioned strength. Attention having been drawn to the great mortality from snake-bite among the people of this Province Sir Lauder Brunton's lancets for the immediate treatment of snake-bite with permanganate of potash was introduced, and during the year 1907, 1,500 of these lancets were sent to Commissioners of Divisions for free distribution to select *Myothugyis*, Village Headmen, Revenue Surveyors, Police Officers, Vaccinators, Veterinary Inspectors, Township Officers and Hospital Assistants. A few reports have been received of successful treatment of snake-bites with potassium permanganate; the snakes in these cases were alleged to have been the Russels Viper, Cobra, and "Gyat" (a species of water serpent). With a small laboratory some Pathological work was performed at the Rangoon General Hospital. At a public meeting held under the presidency of His Honour the Lieutenant-Governor, on the 19th September 1907, it was decided to establish a Pasteur Institute in this Province, and plans and estimates are being prepared for the construction of the Institute at Maymyo. One hundred and seventy-one patients were treated for plague at the Government Plague Hospital, Rangoon, during 1907 and

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

32 cured against 489 treated and 169 cured in 1906, the decrease during 1907 being due to the fact that suspected cases among the out-going passengers sent to the Plague Hospital for treatment were very few. In Maymyo 9 patients were treated for plague during 1907 and 6 cured against 159 treated and 69 cured in 1906.

Miscellaneous.

202. Seven hundred and twelve lepers were treated at the different Asylums in the Province against 751 in 1906. Government contributed towards the Rangoon Leper Asylum an allowance of Rs. 50 per mensem. In connection with Nursing, the "Results-system Midwives" scheme has been sanctioned by Government and a lump sum of Rs. 7,800 granted for the building of quarters for candidates undergoing instruction. The Dufferin Hospital Committee undertook and completed the building of quarters and eight candidates have been admitted for training. The Burma Government Medical School for training Burmans, Karens, and other lads of indigenous as well as domiciled races was formally opened on the 4th February 1907 by Colonel W. G King, I.M.S., the Inspector-General of Civil Hospitals. The stipends originally allowed having been found to be too small to attract students a higher rate has been sanctioned.

Lunatic Asylums.

203. During the year a small Lunatic Asylum was established at Minbu as a temporary measure for the detention of a portion of the surplus criminal male population of the Rangoon Asylum. The Rangoon Asylum has accommodation for 429 inmates of all classes. On the first day of 1907, the population stood at 493, and rose to 514, the maximum, on the 18th and 19th of April. By the transference of 78 harmless and recovered lunatics to Minbu in April and May, it was reduced to 445, but a steady increase continued throughout the year which closed with 456 inmates in confinement. The daily average strength was 469 against 474 in 1906 and 454 in 1905, so that notwithstanding the opening of a branch Asylum in Minbu, there was overcrowding throughout the year. As in previous years, it was confined to the criminal and female sections. The Minbu Asylum has accommodation for 80 at 50 square feet per head. Its daily average was 73 males. Of the 78 inmates sent there, two were released. Compared with 1906, the daily average sick rate at Rangoon fell from 31·07 to 22·27, but the death-rate rose from 6·74 to 10·01. The higher death-rate is attributable to the admission of a large number of moribund civil patients and to the transfer of 78 healthy inmates to Minbu. In Minbu there were 26 admissions for trivial complaints but no deaths. Expenditure amounted to Rs. 82,423 for Rangoon and Rs. 7,358 for Minbu. Taking both Asylums together the average cost of maintaining a lunatic amounted to Rs. 164, rather more than in 1906. Under manufactures there was a net profit of Rs. 17,962-2-7 in both the Asylums against Rs. 14,165-4-8 in Rangoon during 1906

Sanitation.

Expenditure.

204. A sum of over 47 lakhs out of a total income of 115 lakhs was devoted by Rural and Municipal authorities to sanitary purposes. The proportional expenditure on sanitation was greater than in previous years. Excluding Rangoon, Municipalities expended 4·98 per cent. of their income on water-supply, 1·33 per cent. on drainage, 20·84 per cent. on conservancy, and 17·42 per cent. on other sanitary works during the year. The proportion of income devoted by Municipalities to sanitary works averaged therefore 44·57 per cent. Though this figure represents improvement it is noticeable that the average amount expended on water-supply is less than the figure of the preceding year. Having regard to the annual recurrence in many towns of water-borne diseases such as epidemic cholera and the risk at each recurrence of its attaining serious dimensions, the small proportion of income spent by Municipalities on the improvement of their drinking water-supply affords ground for misgiving. Town Funds allotted 42·56 per cent. of their income to sanitary purposes and ·60 per cent. to water-supply.

205. In Rangoon the scheme alluded to in the Annual Sanitary Report of 1906, for the distribution of pipe water-supply throughout the "Pucca" area has continued to progress. Of other Civil sanitary works alluded to in the Annual Sanitary Report for 1906, the gravitation water-supply scheme of Akyab has advanced a stage. The water-supply scheme of Mandalay has now reached the stage of choice between two projects, *viz.*, the Sedaw Reservoir Scheme estimated to cost Rs. 23,16,587, and the Irrawaddy Intake Scheme, estimated to cost Rs. 18,52,086. The suggestions made in the Annual Sanitary Report for 1906 are undergoing practical trial at Pyinmana and Shwebo, the operation of an experimental infiltration gallery for a length of 50 feet being in progress at both of these towns. During the year under review deep borings for tube wells were made at Bhamo, Letpadan, Kyaiklat and elsewhere with varying degrees of success. At the towns of Pyu and Kanyutkwin in the Toungoo District results have been so encouraging that it is proposed to institute an experimental boring at Toungoo itself. The question of increasing the water-supply of Maymyo has been under consideration during the year, with the result that it has been decided to construct a second reservoir supplied by a separate and additional catchment area. Water-supply.

206. The work of improving and extending the "Shone and Ault" system of sewerage in Rangoon has been continued. The introduction of the Henzada Conservancy Scheme sanctioned by Government during the year has been commenced. The undertaking of an improved Conservancy Scheme for the Town of Mandalay has been temporarily suspended for lack of funds. At the Town of Allanmyo a project for the construction of masonry drains in the more crowded areas has been adopted, and Government have sanctioned a loan of Rs. 15,000 to the Municipality for its execution. Conservancy and Drainage.

207. The Provincial Sanitary Board held two meetings during the year, one at Rangoon and the other at Maymyo. Papers relating to the Henzada and Mergui conservancy schemes and the Mandalay water-supply schemes were considered. Sanitary Board.

Vaccination.

208. The vaccination staff employed during the year 1907-08 consisted of 253 Vaccinators and 44 Native Superintendents of Vaccination, compared with 244 and 32 respectively in the previous year. The total number of operations performed during the year was 387,402 against 411,131 in 1906-07 showing a decrease of 23,729 cases. This falling off in the number of operations performed is considered to be to some extent due to the improved supervision of the work performed by rural Vaccinators, by a staff of trained Native Superintendents, which has had the effect of making the submission of false returns less easy; and partly to the apathetic but rarely hostile attitude of the people of some districts towards vaccination. In the Henzada District alone, there was a decrease of 20,369 recorded operations which was reported by the Civil Surgeon to be the result of the unreliable and grossly exaggerated figures returned by Vaccinators in past years, when there was a lack of proper supervision. The total expenditure from all sources on account of vaccination was Rs. 1,38,604 compared with Rs. 1,27,528 for the previous year. The increase in expenditure was largely accounted for by the gradual increase in the number of Native Superintendents of Vaccination since 1906-07 and it was enhanced by the fact that the additional Native Superintendents posted during the year to their respective districts drew travelling allowance during the major portion of the period. The cost of each successful vaccination has also increased from 6 annas and 1 pie in 1906-07 to 6 annas and 11 pies in 1907-08. The proportion of the cost of the Vaccination Department borne by Government, Local Funds, Municipalities and Native States was 40·41, 41·52, 15·56 and 2·51 per cent. respectively. The percentage of success in primary operations in which results are known was 91·78 and in re-vaccination 58·71 against 90·65 and 52·39 respectively for 1906-07. The percentage of cases

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

found successful, out of the total number inspected by Civil Surgeons was 90·52 against 89·20 in the previous year. The rate of success reported by Native Superintendents of Vaccination on inspection was 89·22 against 88·28 in 1906-07. The Native Superintendents have inspected 40·05 per cent. of primary operations and 44·85 per cent. of re-vaccination, while the percentages of operations verified by the Civil Surgeons are only 13·51 and 23·09 only. There has during the last few years been a great improvement in the quality of lymph prepared at the Vaccine Depôt at Meiktila, whence the supply for the whole Province excepting the town of Rangoon is obtained. The ratio of success obtained has not been in many instances, however, commensurate with the quality of the lymph supplied and this failure has been due partly to deterioration which is unavoidable owing to the length of time occupied in transit from the depôt to the scene of operation, and partly to carelessness and want of skill on the part of the Vaccinators employed. Inoculation with variolous matter against small-pox is widely practised in non-Municipal areas where it is not illegal, and the rural population freely resort to it whenever they are threatened by an epidemic of small-pox. A Bill to prohibit the practice of inoculation in notified rural areas has been passed into law since the close of the year of report. Its operation may be expected in time to put an end to this dangerous practice throughout the Province.

CHAPTER VII.

INSTRUCTION.

REFERENCES.—

Report on Public Instruction in Burma for the year 1907-08.
Report on the Insein Reformatory School for the year 1907.
Second issue of the Statistics of British India for 1907-08 and preceding years.

The information under the red-letter heading [illegible] in the Report for 1901-02 is to some extent out-of-date. The section has therefore been revised and is repeated with necessary modifications in the following 34 paragraphs.

General System of Public Instruction

General organization.

209. On the annexation of Lower Burma the British found an almost unique system of vernacular education ready to their hand throughout their newly acquired possession. The *kyaungs* or monasteries were the schools, and the *pôngyis* or monks the teachers, while the taught embraced the whole of the male population of the country, for custom then, as now, demanded that every Burmese Buddhist male, from the highest to the lowest, should pass some portion of his youth in a religious seminary. The tuition given in these indigenous schools was not of the profoundest; but including, as it did, reading, writing and the rudiments of arithmetic, it was not to be despised, and, apart from its intrinsic worth, it was of value as forming a parent stem on which Western educational methods could be grafted. This process of grafting was first systematically carried out by Sir Arthur Phayre in 1866. An Education Department, with a system of grants-in-aid, had been in existence in Burma for many years previously but it was then placed on a sound footing. The attention of the newly appointed Director of Public Instruction was directed to supervising and fostering the scheme for spreading vernacular education through the *kyaungs* or Buddhist monasteries in Rangoon and Moulmein, and the principle of adapting the existing indigenous agency for the diffusion of primary education has since then occupied the foremost place in the educational policy of the Province, Upper Burma having been included in the Education Department's sphere of action in 1889-90. Missionary schools are now plentiful, lay schools both public and private abound, but the bed-rock of vernacular education in Burma is still the monastery teaching and with it is intimately bound up the educational welfare of the people.

Regarded from a purely departmental point of view, education in Burma falls under two main heads, Vernacular and Anglo-Vernacular, the latter being carried on wholly under the supervision of the Government Educational authorities. The former is only partially supervised, for a large number of the monastery schools have not yet conformed to the rules of the Education Department and sought registration. Non-registered schools obtain no assistance from Government, but schools which have been registered and have submitted to Government inspection are helped with grants of various kinds.

Education Department.

210. The Education Department is under the control of the Director of Public Instruction and consists of an Imperial, a Provincial and a Subordinate Service. Members of the Indian Educational Service have a British University training and are appointed in England by the Secretary of State. In this Service are included the Director of Public Instruction, an Assistant Director, six Inspectors of Schools, the Principal and three Professors in the Rangoon College, the Principal, Government High and Normal School, Moulmein, and the Principal of the Rangoon Collegiate School. The Provincial Service includes six Assistant Inspectors, the Head Master, Government Collegiate School, Rangoon, the Head Master of the Moulmein High School, the Head Master and Technical Instructor of the Government School of Engineering, Insein, the Editor, Vernacular Text Books, the Superintendent of the Insein Reformatory and four Lecturers at the Rangoon College.

CHAP. VII.—INSTRUCTION. The Assistant Inspectors are Natives of Burma while the other Provincial Officers are ordinarily Europeans recruited in Burma. The Subordinate Service consists of two branches, one (the general branch) is ungraded and includes 206 appointments on pay ranging between Rs. 400 and Rs. 40 per mensem, whereas the other is graded and includes 52 Deputy Inspectors, 16 Sub-Inspectors and 213 Itinerant Teachers. The Subordinate Service consists mainly of Burmans, Karens or Talaings. In addition to the Education Department there is a body called the Educational Syndicate who advise on educational matters and conduct the Teachers' Theoretical Test and Provincial Examinations.

Government control.

211. The teaching staff of the Education Department consists of the masters of the Government schools (high, middle, normal, etc.) in the Province; but it is comparatively small as until recently the accepted practice was that Government should "ordinarily not establish and directly manage schools and colleges of its own, but should inspect, regulate and assist schools established and managed by private persons or associations." The direct management of schools was left to individual or corporate private enterprise and to Municipal and Town Committees. Schools managed by these agencies were and are aided by Government grants and inspected and guided by the Education Department. This policy has been modified and it is intended that Government shall take a more direct part in the management of Colleges and Schools. In pursuance of this intention, the management of the Rangoon College and Collegiate School was resumed some years ago by Government from the Educational Syndicate. It is also proposed that Government should take over the principal Municipal Schools. The intention is that in the course of time there shall be a Government Anglo-Vernacular High School in every district and it is hoped that in most cases the Principals of these Schools will be members of the Indian Educational Service. But the great part of the tuition is given and must continue to be given by non-Government teachers.

To spread elementary education, however, and to assist such persons as are anxious to have their schools registered by the Education Department, or to raise their grade, a staff of itinerant teachers is maintained by Government. Measures have also been taken to facilitate the appointment of pupil teachers for small and struggling institutions needing special assistance of this kind. These teachers are examined yearly and undergo a practical training at a normal school. In Lower Burma municipalities and committees of notified town areas have the general control of educational affairs within their jurisdiction subject to the rules laid down in the local Education Code; in Upper Burma the control of municipal and town schools rests directly with the Education Department. In Lower Burma education is one of the objects on which District Cess Fund money may be spent, but the District Funds of Upper Burma may not be thus applied.

Schools and Colleges.

212. The Province has no separate University, but there are two colleges which are affiliated to the Calcutta University, one up to the B.A. Standard (the Government College) the other up to the F.A. Standard (the Baptist College). Secondary schools are classed as High and Middle. In the former pupils are taught up to the Calcutta Entrance Standard and to the Vernacular Ninth Standard, in the latter up to the Seventh Standard Vernacular and Anglo-Vernacular. The Education Department maintains six High Schools (one Vernacular, one European, four Anglo-Vernacular) 24 Middle Schools (nine Anglo-Vernacular and 15 Vernacular) and 20 Primary Anglo-Vernacular and Vernacular Schools (18 for boys, two for girls). There are seventeen Municipal Anglo-Vernacular Schools for boys in Lower Burma. Of these, one is a Primary School and twelve are Middle Schools. The remaining four are High Schools. A considerable number of Anglo-Vernacular and Vernacular Schools are under private management receiving Government aid in the form of grants. As already stated a special feature in the Primary education of the Province is the instruction given by the *pôngyis* or Buddhist monks. In almost every village there is a monastery where one of the chief duties of the presiding *pôngyi* is the instruction of the children belonging to the village. No fees are taken, but

in a few cases the schools receive aid from Government. Other schools are established by lay teachers. The primary schools are assisted by itinerant teachers appointed by the Department and working under the orders of the Deputy Inspectors. Besides these schools all the Middle and High Schools have primary departments attached. There are also special schools for non-Burman races. The training of teachers is provided for at twelve Normal Schools of which eight are for masters and four for mistresses. CHAP. VII.—INSTRUCTION.

213 The rules of the Government in the Education Department are to be found in the Education Code which is revised every five years, a conference of managers being called to submit proposals for revision. The Code as revised contains the working experience of the previous five years. A revised edition is now under issue. A separate code is published for the use of European Schools. Education Code.

214. The persons responsible with the officers of the Education Department for the educational administration of the Province are:— Administration.

(*a*) Officers of the Civil administration from Commissioners to Myoôks.
(*b*) Municipal and Town Committees.

The Educational Budgets are arranged by them in consultation with the Department and supplemented when necessary from Provincial and District Cess Funds.

215. There are five Inspection circles, Northern, Eastern, Western, Central and Southern under five Inspectors; a separate Inspector is in charge of the Normal and European Schools. Under them are six Assistant Inspectors, 52 Deputy Inspectors, 16 Sub-Inspectors and 213 Itinerant Teachers. Inspection.

216. For the special supervision of Vernacular Primary Education, each circle of Inspection is divided into sub-circles, each corresponding with a civil district and placed under a Deputy Inspector of Schools. The sub-circles of Pegu, Hanthawaddy, Pakôkku and Shwebo, owing to their size have each two Deputy Inspectors of Schools. For Anglo-Vernacular work, Rangoon schools are divided among the Inspectors of Schools, Eastern, Western, Southern and Central Circles and for Vernacular work under the Inspector of Schools, Eastern Circle. There is a separate Mahomedan Deputy Inspector for Urdu Schools and separate Karen Deputy Inspectors for Karen Schools. A Tamil Deputy Inspector has charge of all the Tamil Schools in the Province. Distribution of work.

217. Educational institutions are classed as Colleges and Schools, Anglo-Vernacular or Vernacular or European, public or private. Classification of institutions.

218. Colleges teach pupils who have passed the Entrance or Matriculation for the F.A. (in the case of the Baptist College, for the F.A. and B.A. (in the case of the Government College). The Government College is supported from Provincial funds and fees. Private enterprise has as yet provided no endowments. The Baptist College is supported by Government aid, fees and mission grants. Colleges.

219. Schools are public or private, indigenous or non-indigenous, general or special, primary or secondary, Vernacular or Anglo-Vernacular or European, under public or private management, Government or aided. Classification of schools.

Public Schools are those—

(*a*) in which the course of study conforms to the standards prescribed by Government or a University and
(*b*) which are inspected by the Department and present pupils at the public examinations held by the Department or by the University.

220. An indigenous school is one established by natives of Burma or India and conducted on purely vernacular lines. It may be monastic or lay. The former are conducted in monasteries by monks and usually admit no girls. The Definition of an Indigenous School.

CHAP. VII.—INSTRUCTION.

latter are for boys or girls or both. Vernacular schools conducted by Missions are classed for purposes of examination and receiving grants as indigenous.

Special Schools.

221. Special schools are of six kinds:—Training, Surveying, Engineering, Medical, Industrial, Veterinary.

Training schools are Government and aided. Survey schools are supported by Government and are under the supervision of the Commissioner of Settlements and Land Records. There is one School of Engineering. It prepares for the Subordinate grades of the Public Works Department. The new buildings in connection with this school were opened by His Honour the Lieutenant-Governor in March 1908. There is a Government Medical School in Rangoon.

Reformatory School.

222. The Government Reformatory at Insein is now under the control of the Director of Public Instruction. There are six literary standards and technical instruction reaches the Seventh Standard. Besides the Reformatory there are three Industrial Schools attached to aided schools in the Province.

Manual Training.

223. Manual Training or Slöjd is taught in all Normal Schools and in St. John's College, Rangoon, and the Roman Catholic Mission School at Thônzè.

Standards of Instruction.

224. There are at present ten standards of instruction from the Infant to the Ninth for Vernacular, Anglo-Vernacular, and European Schools. The first three are Lower Primary, the next two Upper Primary, the next three Middle or Lower Secondary and the last two High or Upper Secondary. The Ninth Standard Anglo-Vernacular and European is the Entrance class. After passing it, a student may enter an Arts college. Under the new Anglo-Vernacular Code there will be an additional standard (X) in the Anglo-Vernacular High School next year.

Vernacular Schools.

225. Vernacular Schools are those in which no English is taught: Anglo-Vernacular those in which English and a Vernacular are taught in every standard from the lowest to the highest.

Teaching of English.

226. Under the new Anglo-Vernacular Code mentioned above, the teaching of English is now limited in Anglo-Vernacular Standards I—III to conversational and oral methods; a change which will give the vernacular its proper place in the Primary standards.

Management.

227. An institution is considered to be under public management when it is under the direct management of Government or of officers or committees acting on behalf of Government or of local committees constituted by law. Government institutions receive no grants-in-aid, while schools under Municipalities receive aid in the form of half-salary grants. Schools under private management are all aided.

System of Aid.

228. There are two systems of aid: one under the "Grant-in-aid rules for Anglo-Vernacular Schools and European Schools" and one under the "Grant-in-aid rules for indigenous schools." Before a school is eligible for grants it has to be registered under the rules for registration. The grants are of nine kinds:—

(*a*) *Ordinary* or *maintenance* grants, calculated on the difference between the income and expenditure, the income from fees being calculated on definite rules as to the rate of fee and remissions.

(*b*) *Boarding* grants for each pupil supplied with board and lodging on the school premises.

(*c*) *Results* grants for technical subjects.

(*d*) *Special* grants to supplement private expenditure on buildings, furniture and apparatus.

(*e*) *Salary* grants to fully certificated teachers.

(*f*) *Fixed* grants, tenable for five years, subject to progress and to the observance of the rules laid down by the Department.

(*g*) *Normal School* grants.
(*h*) *Extra* grants for Europeans and for girls.
(*i*) *Cadet* grants for every European or Eurasian cadet who is efficient during the year.

All grants, except the two last, are subject to the condition that the total given to a school must not exceed the amount contributed during the previous year from private sources.

Indigenous Schools.

229. Indigenous schools are maintained by Burmans, Karens, Tamils, Telugus, Chins, Kachins, Mahomedans, Talaings, Taungthus and Manipuris, and by missionary societies. As in the case of Anglo-Vernacular schools these schools have to be registered. The requirements for registration are—

(*a*) That the school has a working session of at least four months.
(*b*) That at least four pupils are able to read and write their vernacular as judged by standard I.
(*c*) That the school passes pupils within a year of registration by the recognized standards.

The aid given is of six kinds—

(*a*) *Results* grants.
(*b*) *Pupil-teacher* grants.
(*c*) *Special* grants for buildings, furniture and apparatus.
(*d* *Salary* grants for two years to enable managers to maintain themselves till fees and results grants render their schools self-supporting.
(*e*) *Fixed* grants.
(*f*) *Extra* grants.

Training Institutions.

230. The training of teachers for Vernacular, Anglo-Vernacular and European work has received special attention in recent years. There are now five Government and seven aided Normal Schools, of which eight are for men and four for women.

Education of special classes.

231. The education of backward tribes is fully attended to by the Department. Those of a specially backward nature are given extra grants and in their cases the rules are considerably relaxed. Extra grants are also given in the case of European schools owing to the greater cost of maintenance.

Aid to European Orphans.

232. A special form of aid is open to the children of Europeans in Burma—

(*a*) A fixed number of monthly stipends, tenable for three years, awarded annually, towards the maintenance and education of orphans, at approved institutions.
(*b*) A fixed number of boarder stipends, tenable for three years, to enable poor European parents to send their children to boarding schools.
(*c*) A fixed number of apprentice stipends, tenable by apprentices at approved workshops.

These stipends are awarded by Boards at Rangoon, Moulmein, Akyab and Mandalay, under rules laid down in the Code. No stipends are paid except on account of children who are actually under instruction. The stipends are tenable subject to good conduct and progress.

Pâli Examinations.

233. An examination in Pâli is held annually in Mandalay, Rangoon, Moulmein and Akyab, to which monks, laymen and nuns are admitted. This is known as the Patamabyan. It is divided into three grades: Patamangè, Patamalat and Patamagyi. The candidate who heads the list in the last grade is known as "*The Patamagyaw*" of the year. His certificate is specially presented to him by His Honour the Lieutenant-Governor. The Patamagyaw is exempted for life from *thathameda* or capitation-tax, as the case may be. If he is a *póngyi* his natural parents are so exempted. Rewards and certificates are given for passes in each grade. To any candidate who is forbidden by his habits of life to take

CHAP. VII.—INSTRUCTION.

money presents of robes of equal value are made. The examination is very popular and has done much to enlist the sympathies of the monks.

Examinations.

234. The examinations held in Burma are of two kinds: (*a*) *University* and (*b*) *Provincial*. The former consist of the Entrance, F.A. and B.A. examinations of the Calcutta University. The latter are conducted by the Education Department and consist of the examination of standards One to Nine Anglo-Vernacular, Infant to High School in European Schools, and Infant to Ninth, Vernacular; School of Engineering, upper and lower subordinate grades; pupil teachers, first and second years, theoretical, and first, second and third years, practical; normal schools, first and second years, theoretical and practical; teachers' drawing tests; Patamabyan; and technical examinations.

Scholarships and prizes.

235. The scholarships and prizes consist of—

(*a*) Five *senior University* scholarships, tenable for two years by students who have passed the F.A. and read in a college for the B.A.

(*b*) Twenty *junior University* scholarships, tenable for two years in a college, by students who have passed the Entrance and read for the F.A.

(*c*) Thirty-eight *Middle English* scholarships, tenable for two years in a high school, awarded on the results of the Seventh Standard examination.

(*d*) One *Medical* Scholarship tenable for five years at the Medical College, Calcutta, offered every year for candidates of Burman or Indo-Burman origin, one offered every other year for European and Eurasian candidates whose parents are domiciled in Burma. Candidates for these scholarships must be over 24 years of age and have passed the F.A. Examination and must ultimately pass the L.M.S. degree.

(*e*) Five Hospital Assistant scholarships open to candidates of Burmese and Karen origin, of whole or half blood and Burmese-speaking sons of Hospital Assistants who have served 10 years in Burma. The initial qualification is the Seventh Anglo-Vernacular Standard.

(*f*) Three female medical scholarships, tenable for four years in the Medical College, Calcutta, by female candidates of any nationality, who are permanently domiciled in Burma, and who have passed the Entrance Examination and have a knowledge of Burmese equivalent to the Seventh Standard.

(*g*) Three *Lower Subordinate* scholarships, tenable for two and one-fourth years in the Government School of Engineering, Insein, by a candidate who has passed the Seventh Standard.

(*h*) Two *Upper Subordinate* scholarships, tenable for three and one-half years in the Government School of Engineering, Insein, by a candidate who has passed the Entrance.

(*i*) One *Draftsman* scholarship tenable for three and one-half years in the Government School of Engineering, Insein, by candidates who have passed the Entrance Examination of the Calcutta University.

(*j*) Two *Maung Ohn Ghine* scholarships, tenable under certain specified conditions detailed in the Code for two years each, in the Upper and Lower Subordinate classes respectively, of the Government School of Engineering, Insein.

(*k*) One *Maung Ohn Ghine* medal, awarded annually to that pupil of the Government School of Engineering, Insein, who gains the highest marks in the final test for the Upper Subordinate class.

(*l*) One *Copleston* prize, open to the student, male or female, reading in a recognized normal school, both of whose parents are either Burmese, Talaing, Karen, Chin, Shan or Kachin, who stands first in the Vernacular Secondary Grade Teachers' Test Examination.

(*m*) One *Governor of Renaung* prize, the product of an endowment by His Excellency Khaw Sein Kong, awarded annually in the Government Collegiate School, Rangoon, to the best scholar of the year in the Entrance, in English and Burmese.

(*n*) One *Jardine* prize, awarded to the student of the Rangoon College who passes highest in the first division of the F. A. Examination. CHAP. VII.—INSTRUCTION.

(*o*) *Garnet Man* prize, five in number awarded to pupils from the five principal schools in Rangoon for proficiency in English history and more especially English naval history.

236. Scholarships open to pupils from European schools are of five grades— Scholarships tenable in European Schools.

Fifteen Primary tenable for three years in Middle classes.
Fifteen Middle tenable for two years in High classes.
Seven High tenable for two years.
Two Collegiate tenable for two years.
One Final tenable for two years.

237. One Engineering scholarship is offered annually to candidates of Burmese and Indo-Burmese blood, and to Europeans and Eurasians whose parents are domiciled in Burma. Candidates must have passed the B.A. Course of Calcutta in Physics and Chemistry and be under 23 years of age or the F.A. Course of Calcutta and be under 21. This scholarship is tenable at the Engineering College, Sibpur. Engineering Scholarship.

238. The Educational Syndicate awards from funds in its keeping to women three scholarships a year known as the St. Barbe scholarships, tenable for one year in the Dufferin Hospital, Rangoon. They also award one scholarship, known as the Bigandet scholarship of Rs. 600 tenable in the Calcutta Medical College for five years, to candidates male or female, who are domiciled in Burma, have a fluent knowledge of Burmese and have passed the F. A. Examination, if male, the Entrance if female. St. Barbe's Scholarship and Bigandet Medical Scholarship.

239. The *Bigandet* medal is awarded every three years to any person who is either a native of, or is domiciled in Burma and who has, during the three years preceding the date of award, distinguished himself or herself by marked success at an university or professional examination or by the publication of any literary or scientific work of exceptional merit. Bigandet Medal.

240. The *Gilbert* scholarship is tenable on the technical side of the Rangoon College by a selected student who has passed the Anglo-Vernacular Seventh Standard. Till such technical side is opened, it is tenable in any approved workshop. Gilbert Scholarship.

241. The Burma Railways Company, Limited, entertain a number of apprentices, limited to 35 Europeans and Eurasians and 35 Natives of Burma. The apprenticeships last for five years. Government supplies a teacher for English, a teacher for mensuration, practical geometry, and mechanical drawing. Railway Workshop Apprentices.

242. The Text-Book Committee is a standing body consisting of the Director and twenty members, official and non-official, appointed by the Local Government. Books in English and Vernacular are submitted at the instance of the Director to the Committee for approval, prior to authorization by Government for use in schools. The Committee however has no control over books intended for use in European schools which are dealt with departmentally. The Committee is divided into two Sub-Committees dealing with Vernacular and English books respectively. As part of the Education Department's staff an Editor and Sub-editor of Text Books are maintained, their duty being to prepare works approved by the Committee and Government for use in schools and to make any necessary translations. Text-Book Committee.

Education.

243. The number of colleges and schools of all descriptions during the year ending the 31st March 1908 was 22,425. These were attended by 423,819 pupils, of whom 70,298 were girls. Public institutions numbered 6,563 and included Number of schools and scholars and expenditure.

CHAP. VII.—INSTRUCTION.

249,400 pupils. Private institutions which numbered 15,862 with 174,419 pupils were all of an elementary kind and of this total only 101 were girls' schools. In comparison with the previous year's figures, the returns for public and private institutions show an increase of almost five per cent. as regards number and over six per cent. as regards attendance. The percentage of male scholars to the male school-going population now stands at 44·12 against 41·96 in the previous year: that of girls to the female school-going population is now 9·10 against 8·14 in 1906-07. The total expenditure on education rose from under 35 to over 39 lakhs, the increase being nearly equally distributed between direct and indirect expenditure. Nearly one-half the amount was met from Provincial Funds, about one-fourth from fees and the balance from Local and Municipal Funds and contributions from private sources. Provincial Funds provided 18·79 lakhs for education as compared with 16·09 lakhs in 1906-07. Of this sum 6½ lakhs roughly were spent on Government schools, a little more on aided schools and Rs. 74,000 on District Fund and Municipal institutions. The expansion of expenditure from Provincial Revenues was mainly incurred on Government schools. A satisfactory increase is shown in the receipts from fees, 9·71 lakhs, and from "other sources", 4·36 lakhs. Expenditure from all sources on buildings and furniture amounted to 5·24 lakhs, 1½ lakhs more than in 1906-07, and charges for Direction and Inspection, which are almost entirely paid by Government, rose from 3·25 to 3·63 lakhs.

Primary Education.

244. The term 'primary school' includes schools teaching English as well as purely Vernacular schools. The total number of primary schools shows an increase of three per cent., but it must be noted that a considerable number were raised to secondary grade. Their attendance is thus reckoned under secondary schools and this accounts for the small increase of six per cent. in pupils attending primary schools. Anglo-Vernacular schools have decreased by five, four having been transferred to the secondary list, two abolished and one opened. The total number of pupils in the primary stages of instruction in all schools including those in the primary departments of secondary schools was 234,999 compared with 214,687 in 1906-07, an increase of nine per cent. The figures are distributed as follows:—

Pupils in primary schools	183,290
In primary departments of secondary schools	51,709
Total ...	234,999

Of Anglo-Vernacular primary schools four are managed by Government and twenty are aided. Of Vernacular schools fourteen are managed by Government, a decrease of five on the previous year, due to the transfer of six schools to the secondary list. No 'five-hundred rupee' schools were opened during the year.

The total expenditure on primary education including the cost of the primary departments of secondary schools was Rs. 12,22,252 against Rs. 11,29,378 in 1906-07, of which Rs. 4,71,763 came from Provincial Funds and Rs. 2,61,553 from District Funds.

Secondary Education.

245. Secondary schools increased by seven per cent. during the year and to this increase the Pegu, Irrawaddy and Meiktila Divisions and Southern Shan States have contributed. Attendance increased by thirteen per cent. and all parts of the Province share in this advance. In Vernacular secondary education the improvement is still more remarkable, schools showing an increase of twenty-two per cent. and attendance of twenty-six per cent. There are now ten Vernacular high schools with 1,521 pupils as compared with eight schools and 992 pupils in 1906-07. Government Anglo-Vernacular schools increased from twelve to fourteen. Municipal Anglo-Vernacular schools remain at sixteen while aided schools increased from fifty-seven to sixty-one. The number of Anglo-Vernacular high schools are as follows: 5 Government, 4 Municipal, 10 Aided; of Middle Schools—Government 9, Municipal 12, Aided 51. Government Vernacular schools have increased by 6 and aided schools by 87, an increase of 75 and 21 per cent., respectively. There was a large increase in the number of passes by the Entrance examination,

the total rising from 105 to 164. Out of the pupils who passed only five were girls. Only five pupils passed the Vernacular ninth standard as against six in the previous year. This figure does not include normal students of whom seventeen passed. In the Anglo-Vernacular eighth standard examination 336 pupils were presented (six girls) and 285 passed (five girls), a much better result than in the previous year. In the Vernacular eighth standard 54 appeared and 20 passed and 36 normal students were successful. The passes in the Middle School examinations in Anglo-Vernacular schools increased by 80 per cent. and in Vernacular schools by 23 per cent. The total expenditure on secondary schools rose from 13·13 to 14·83 lakhs of which nearly 5 lakhs came from Provincial Funds and 5½ lakhs from fees. There was considerable expansion under both these heads.

Collegiate Education.

246. There are two colleges in Burma—the Government College and the Baptist College—both teaching the Arts course. The former teaches up to the B.A. standard, the latter up to the F.A. The total attendance in the Rangoon College was 115 or four more than in the previous year. Ten students appeared for the B.A. Examination and seven passed. Forty-nine appeared for the F.A. Examination and 25 passed, 16 in the second division. The Baptist College had 23 students on the roll. Fifteen candidates were presented for the F.A. Examination of whom one passed in the second division and obtained a scholarship and two passed in the third division. The total expenditure on Collegiate education has risen by twenty-eight per cent. and is now almost a lakh. Provincial Revenues contributed about Rs. 67,000, an increase of 37 per cent.

Technical Education.

247. The new buildings in connection with the Government Engineering School, Insein, were opened by His Honour the Lieutenant-Governor during the year. The number of students on the roll during the year was 90 as compared with 63. Of these 9 were Europeans or Eurasians, 12 Burmans and 69 Natives of India. Other Technical schools exist at Rangoon and Toungoo and the number of pupils enrolled in such schools amounted to 192. A certain amount of technical instruction is given in ordinary schools. The subjects taught include drawing, weaving, cooking, carpentry, lace-making, sewing, etc.

Training Schools.

248. The rules relating to Normal Schools were thoroughly revised during the year and the new regulations took effect from the 1st January 1908. The initial qualification on the Anglo-Vernacular side is now a seventh standard pass. This was required only from secondary grade students before, the primary grade students being admitted with a fifth standard pass. The period of training is two years, except for higher grade students, who require three. The literary course requires more English, but in other subjects has been limited so as to give students a thorough knowledge of what they will afterwards be called on to teach. This literary work no longer corresponds to the work of the standards. On the Vernacular side the qualification for admission is a pass by the sixth standard. Students who remain two years leave with a primary grade certificate, those who remain three years with a secondary grade certificate and those who remain four years with a higher grade certificate, provided that their work merits this recognition. The higher grade Vernacular certificate is a new institution. Until recently the seventh standard was the highest stage reached on the Vernacular side. The eighth and ninth standards were introduced in 1898 and have proved very popular with Normal students and with the best school managers. The additional literary work now imposed for the higher grade certificate carries the students still higher. There were 12 Normal schools in the Province of which 8 are for men and 4 for women. These figures are the same as in 1906-07. Pupils have decreased from 542 to 466. The figures for men show a decrease of 7 per cent. The largest decrease was in the Government Normal School, Rangoon, where numbers fell from 75 to 19—the decline being due to the changed rules which now compel students to attend for the whole day. Of students in Normal schools 172 took the Anglo-Vernacular and 294 the Vernacular course compared with 297 and 245. Outside candidates were allowed on the Vernacular side and a large number appeared for examination. Taking Normal students and outside

CHAP. VII.—INSTRUCTION.

candidates together the following is the list of presentation and passes under various grades :—

	Presented.	Passed.
Primary Vernacular	1,368	312
Primary Anglo-Vernacular	78	57
Secondary Vernacular	422	64
Secondary Anglo-Vernacular	93	33
High Anglo-Vernacular	15	9

Expenditure on Normal schools is borne by Provincial Revenues and 'other sources.' The total cost was Rs. 1,22,355 representing an increase of 24 per cent. and of this Rs. 1,10,029 was met from Provincial Funds.

European Education.

249. The total number of European pupils in all classes of registered institutions was 3,518, an increase of 3 per cent., but of these no fewer than 1,296 were in schools registered under the Anglo-Vernacular Code. This number will be much reduced shortly, as several schools will open European departments. There were 16 Secondary and 2 Primary European schools; of the Secondary 9 have high departments. One hundred and forty-one pupils attending European schools were returned as non-Europeans as compared with 151 in the previous year. Of the 2,334 pupils returned as in European schools 1,767 were in Primary standards, 453 in Middle School standards, and 114 in High School standards. Of the latter, 74 were girls and 40 boys, a fall of 27 and 10 respectively. The total expenditure on European education rose from Rs. 2,24,401 to Rs. 3,45,001 and the Government share of this expenditure from Rs. 97,926 to Rs. 1,68,105. Scholarships have increased from Rs. 1,533 to Rs. 5,097. Expenditure on European schools (exclusive of building, scholarships, etc.) has increased from Rs. 1,77,564 to Rs. 2,02,411, an increase of 14 per cent. In 1906-07 Provincial Funds contributed only Rs. 39,105, while in the year of report the share of Government was Rs. 93,636, an increase due to the fact that in 1907-08 the cost of European schools was met entirely from Provincial Revenues.

Education of Special Classes.

250. The total number of Mahomedans under instruction shows a decrease of 1,547 or 21 per cent.; one in 43 pupils of school-going age attend school. This decrease is on the Vernacular side and is confined to Primary schools. The decrease in private schools is 48 and in public schools 7. Primary schools were attended by 459 pupils less while Secondary schools showed an increase of 197. This decrease is entirely in Arakan. Passes gained by Mahomedans in Higher Examinations include 12 in the Entrance Class, two by the F.A. Standard and one B.A., a great improvement on last year. The passes in the Middle School were nearly doubled. Karens maintained 12 Anglo-Vernacular and 852 Vernacular schools, the latter showing an increase of 10 per cent. Tamils and Telugus maintained 11 schools with 1,820 pupils. Talaings maintained 72 public schools with an attendance of 3,370. Shan schools have risen from 37 to 112 and attendance from 1,318 to 2,911. There were two Chinese schools as before, one at Bhamo maintained by Government and one in Mandalay under the Roman Catholic Mission. There was also a special Chinese class attached to the Methodist Episcopal Burmese Boys' School, Rangoon. The Chins maintained 16 schools as compared with 14 last year and attendance has also increased. There are now 15 Kachin public schools, an increase of 6. Palaungs, Taungthus and Manipuris among them had 11 schools, but this is a decrease on the figures of 1906-07.

Female Education.

251. The total number of girls in institutions of all kinds, public and private, was 70,298, of whom 66,220 are in public institutions—one girl in every eleven of school-going age is attending school as compared with one in twelve in 1906-07. The largest number of girls in attendance in public schools is to be found in Pegu Division, but the Irrawaddy and Tenasserim Divisions are not far behind. Five girls attended the Colleges and in the Training Schools the numbers fell from 165 to 98, a decrease due to the changed conditions of admission referred to above. There was an increase of one Anglo-Vernacular Girls' school and 665 pupils, a rise of 22

per cent. On the Vernacular side there was an increase of three schools and 366 pupils. Of the girls in public institutions 64,615 were in Primary Standards, 1,099 in the Middle stage and 97 in the High School stage representing a considerable increase in the Primary, a small increase in the Middle, but a serious fall of 19 per cent. in the High stage. The total expenditure on Girls' Vernacular schools was Rs. 85,367 and on Girls' Anglo-Vernacular schools Rs. 2,41,687. The cost of Anglo-Vernacular Secondary schools has risen by Rs. 39,789, while that of Anglo-Vernacular Primary schools has fallen by Rs. 2,802, the increase under the former head being due to the larger number of girls' schools. The total amount of contributions from Local and Municipal Funds fell from Rs. 86,321 to Rs. 65,893. The percentage of direct expenditure from public funds on girls' schools of all classes was 11·5 as compared with 11·6 in 1906-07.

Insein Reformatory School.

252. The total number of boys confined in the Insein Reformatory School at the end of the year was 80, the same number as in 1906. There were 23 admissions and as many discharges. Of the 23 boys admitted 20 were illiterate. Six literary standards are taught and the boys are reported to have done well in the examinations. They are also taught other work including gardening, tinsmith work, carpentry, cane work and boot-making. In these technical subjects instruction reaches the Seventh Standard. The reports which have been received from the Deputy Inspectors of Schools regarding boys who have left the school are, on the whole, satisfactory. The Director of Public Instruction is now making enquiries in England as to the management of English Reformatories and, on his return from leave, will submit proposals for the improvement of the institution. The net expenditure on the school amounted to Rs. 12,253, slightly less than the figure of 1906. There was a profit of Rs. 703 from manufactures and a sum of Rs. 174 was obtained by the sale of garden produce.

Literature and the Press.

Publications registered.

253. The total number of publications registered during the calendar year 1907 under the Printing Presses and Books Act, 1867, was 171, as against 263 registered during the previous year, a decrease of 92. The outturn of 1906, however, was exceptional, being almost double that of the year before. Of the 171 publications no less than 155 were written in Pâli, Burmese or both combined. Of the small remainder six were written in English, three in English and Burmese together, and one in English and Shan. Only six books were written entirely in a Vernacular other than Burmese, one in Kachin, one in Talaing, three in Sgau-Karen and one in Tamil, this last, a translation of the Vedic poems by Hajarath Sahib, being the solitary product of the Indian mind in Burma. Seventy-eight works are included under the head of Religion, 52 under Drama and 11 under Language. Books of poetry and songs (wrongly included) swell the number of dramas, but even without these the section would still comprise a large proportion of the books published during the year. Burma cannot complain of a plethora of fiction. This heading is represented by four works only, two of which are translations. The story of Maung Ta Naw, which appears first in the list, is in no sense a novel; it is a collection of puns, jests and those verbal quibbles to which the Burmese language so readily lends itself. The only other work of fiction which is not translated is Maung Nyo's story of Dudiwahana and the Princess Pathadasandi. This book, however, which relates the adventures of a sort of Don Juan, bears all the marks of adaptation from India. The style meets with the reviewer's approval, but the moral tone does not. The most important or at any rate the most useful new contribution under the heading of language is a Pâli Grammar by Mr. Duroiselle of the Rangoon College. This has been prepared to meet the special needs of Burmese students, who are invariably innocent of Sanskrit. The only law-book published during the year was a short handbook by Mr. Richard, Township Judge of Pyapôn, on the law of gambling in Burma. The four medical works issued were all on Burmese medicine. There are apparently two schools of medicine in Burma, the Dietists and the Druggists.

CHAP. VII.—INSTRUCTION.

Both are entirely empirical and full of quackery, but the former is slightly the more respectable, and it is to this school that the works under review belong. Owing to faulty classification only one Burmese poetical work has found its way into the poetry section. This is the Mingala Egyin of Maung Po Shin, Township Judge of Ôkpo, a collection of odes intended to be sung at the obsequies of the late Ôkpo *Sayadaw*. Works on religion account for nearly half the total number of books. The most notable feature of the year's list is the lit rary activity of the Ledi *Sayadaw* and his following, who are responsible for no less than 22 books and pamphlets on moral, religious and kindred subjects, ranging from cow-eating to metaphysics. The scientific spirit is not yet abroad in Burma. Four works appear in this section, but none of them are, strictly speaking, scientific. Perhaps the most important literary feature of the year under review is the literary campaign of the Ledi *Sayadaw*. Whether it indicates any sustained effort to revive a Buddhist propaganda and to render Buddhism as a religion a more practical guide on the conditions of modern life in Burma remains to be seen. None of the other classes of literature exhibit any new tendencies or any features specially worthy of notice except perhaps the morbid sensationalism of the indigenous school of dramatists.

Presses, Newspapers and Periodicals.

254. Eighty-six printing presses were at work in the Province during the year 1907-08, eight more than in the previous year. Forty-seven newspapers and 58 periodicals were issued from these presses as compared with 38 and 49 in 1906-07. Of the newspapers 24 were published in English and 13 in Burmese. Seven daily newspapers were published, four in English, two in Burmese, and one in Chinese. All except one Mandalay English paper appeared in Rangoon. The most important daily papers are the "Rangoon Gazette," published in the morning, and the "Rangoon Times," an evening paper. A number of newspapers of no great importance are also published in English and Burmese at intervals varying from three times a week to once a month. There are besides a weekly and a bi-weekly paper in Tamil, a bi-weekly Gujerati and a weekly Telugu paper as well as several Karen newspapers. A considerable number of the Burmese and Karen newspapers as well as most of the periodicals other than Government publications are of a religious character, and many of them are published by the American Baptist Mission Press, Rangoon.

Literary Work.

(See paragraphs 487 to 489 of the Report on the Administration of Burma for the year 1901-02 and paragraph 282 of the Report on the Administration of Burma for the year 1904-05.)

Arts and Sciences.

255. The annual Provincial Art Competition was opened by the Lieutenant-Governor in February 1908. There were more entries than usual in all classes and the workmanship was up to the high standard expected at these competitions. The wood-carvers were especially well represented in all the grades. The prize offered to master-silversmiths for a large piece of plate was taken by a man from Bassein. The picture and photograph sections showed a great falling off in the number of exhibits though some of the work was good, a study of exceptional merit being awarded the Lieutenant-Governor's prize.

CHAPTER VIII.

ARCHÆOLOGY.

REFERENCE:—

Report of the Superintendent, Archæological Survey, Burma, for the year 1907-08.

256. During the year of report arrangements for the administration of the Ancient Monuments Preservation Act in Burma were approved by the Local Government and steps have been taken to bring them into effect. As a preliminary measure, all the monuments of historic and architectural interest at present maintained at the expense of Government by the Public Works Department have been notified to be protected monuments under section 3, sub-section (1) of the Act. To these will be added, in due course suitable monuments selected from the classified list of all the important architectural remains in the Province which the Superintendent of Archæological Survey is now occupied in compiling. The Superintendent anticipates that the list will be completed in a much shorter time than was at first thought possible, and there is therefore reason to hope for the completion before long of the most important operation under the Act, namely, the bringing within its scope as protected monuments of all the remains in Burma which are worthy of preservation. The task of framing rules and directions of general application has proved to be of considerable magnitude and complexity, and their issue in Burma has been deferred pending the co-ordination by the Director-General of Archæology of the varied suggestions on the subject which he has received from all parts of India. Owing to the curtailment of funds available for public works generally the expenditure on Archæological operations during the year showed a very substantial diminution from Rs. 1,25,930 to Rs. 68,475 and a further reduction during 1908-09 has been rendered unavoidable by the pressure of more urgent claims. Current repairs were, however, executed and eleven buildings were added to the list of those whose conservation is undertaken by Government. Of these perhaps the most interesting is the Seinnyet Pagoda in the Pagan Township, which is supposed to have been built in the 11th century, and exhibits distinct evidence of the influence of Chinese Buddhism at that period. Excavation, probably the only trustworthy means by which it is possible to form an idea of the remoter history of Burma, is still in its infancy. A preliminary survey has been made of the site of ancient Prome or Srikshetra, now known as Yathemyo, and has yielded sculptures of an unexplained origin, and inscriptions in an unknown language. The ultimate conclusions to which the detailed study of the site will lead cannot yet be anticipated, as there is little information available whereby the discoveries made can be explained. There is, however, considerable evidence of Indian influence. The site is very extensive, covering an area of no less than 400 square miles, and its examination will be sufficient to occupy the attention of the Archæological Department for many years. The cost of the Department exclusive of expenditure on works, amounted to Rs. 22,637, some fifteen hundred rupees less than in the previous year.

CHAPTER IX.

MISCELLANEOUS.

(See paragraphs 492 and 493 of the Report on the Administration of Burma for the year 1901-02.)

Ecclesiastical.

257. No ecclesiastical event of interest occurred during the year. The Right Revd. A. M. Knight, M.A., D.D., Bishop of Rangoon, went home on furlough in February 1908 making over charge of the Diocese to the Revd. C. P. Cory, M.A., Archdeacon of Rangoon and Bishop's Commissary. Grants-in-aid were sanctioned by Government towards the construction of new Churches at Mogôk and Pakôkku.

Stationery.

258. The bulk of the paper used for official purposes continued to be supplied by the Controller of Stationery, Calcutta, from the Indian Mills. The cost of stationery supplied to general departments during 1907-08 amounted to Rs. 1,22,942, and that supplied to presses to Rs. 2,43,752, showing increases of Rs. 10,517 and Rs. 38,231 respectively over the previous year's figures.

Chemical Examiner and Bacteriologist.

259. Nine hundred and eighty-nine articles were examined in the Medico-legal Department compared with 864 in 1906, and in the General Chemical Department 5,386 compared with 8,547. The greater part of this decrease is in work done for the Excise Department, where the number of articles examined has dropped from 7,281 to 4,248 chiefly under the heading of cocaine, opium and ganja. Out of 482 cases investigated the result was successful in 201 cases. Three hundred and forty samples of water were analysed. The number of specimens and articles examined bacteriologically was 642, while during 1906 the number was 633. Bacteriological examinations of water increased from 51 to 122 mainly in connection with the Viceroy's visit. The number of articles examined for plague was 250 and for typhoid 99. A series of experiments was carried out with Danysz virus. Briefly the result showed the virus to be an inferior direct rat poison and incapable of producing illness or death by contact. Pathological specimens increased from 13 to 39. One case of mycetoma was seen.

Printed by order of the Government of Burma.

G. B. C. P. O.—No. 699, C. Secy., 9 (a) 14-12-1908—573—A.D. C.

REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR

1908-09

RANGOON
OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA
1909

133966

LIST OF AGENTS

FOR THE

SALE OF GOVERNMENT PUBLICATIONS.

IN INDIA:

THACKER, SPINK & Co., Calcutta.
W. NEWMAN & Co., Calcutta.
THACKER & Co., Bombay.
HIGGINBOTHAM & Co., Madras.
PROPRIETOR, HANTHAWADDY PRESS, Rangoon.
SUPERINTENDENT, AMERICAN BAPTIST MISSION PRESS, Rangoon.

IN ENGLAND:

E. A. ARNOLD, 41 and 43, Maddox Street, Bond Street, W. London.
HENRY S. KING & Co., 65, Cornhill, E.C., London.
CONSTABLE & Co., 10, Orange Street, Leicester Square, W.C.
KEGAN PAUL, TRENCH, TRÜBNER & Co., 43, Gerrard Street, Soho, London, W.
BERNARD QUARITCH, 11, Grafton Street, New Bond Street, W.
P. S. KING & SON, 2 & 4, Great Smith Street, Westminster, London, W.S.
GRINDLAY & Co., 54, Parliament Street, S.W.
T. FISHER UNWIN, 1, Adelphi Terrace, London, W.C.
B. H. BLACKWELL, 50 & 51, Broad Street, Oxford.
DEIGHTON BELL & Co., Cambridge.
MESSRS. W. THACKER & Co., 2, Creed Lane, London, E.C.

ON THE CONTINENT:

R. FRIEDLANDER & SOHN, 11, Carlstrasse, Berlin, Germany.
OTTO HARRASSOWITZ, Leipzig, Germany.
KARL W. HIERSEMANN, Leipzig, Germany.
ERNEST LEROUX, 28, Rue Bonaparte, Paris, France.
MARTINUS NIJHOFF, The Hague, Holland.
RUDOLF HAUPT, 1, Dorrientrasse, Leipzig, Germany

[The maximum length of the Summary is from 20 to 30 pages, and of Part II 150 pages.]

TABLE OF CONTENTS.

REPORT ON THE ADMINISTRATION OF BURMA FOR THE YEAR 1908-09.

PART I.

GENERAL SUMMARY.

	Para.	*Page.*
Changes in the Administration	1	i
Frontier affairs	2	*ib.*
The Shan States and Karenni	3	ii
The Chin Hills	4	*ib.*
Realisation of land revenue	5	*ib.*
Surveys	6	*ib.*
Settlements	7	iii
Land Records	8	*ib.*
Transfers of land	9	*ib.*
Disposal of waste lands	10	*ib.*
Revenue and rent-paying classes	11	*ib.*
Legislation	12	iv
Police	13	*ib.*
Criminal Justice	14	v
Prisons	15	*ib.*
Civil Justice	16	vi
Registration	17	*ib.*
Municipal Administration	18	*ib.*
Military	19	vii
Marine	20	*ib.*
Agriculture	21	*ib.*
Weather and Crops	22	viii
Experimental cultivation	23	*ib.*
Horticulture	24	*ib.*
Forests	25	ix
Mines and Quarries	26	*ib.*
Manufactures	27	*ib.*
Seaborne Trade	28	*ib.*
Transfrontier Trade	29	x
Public Works—		
(i) Roads and Buildings	30	*ib.*
(ii) Railways and Tramways	31	*ib.*
(iii) Canals	32	xi
Irrigation	33	*ib.*
Gross Revenue	34	*ib.*
Imperial Revenue and Finance—Land Revenue	35	*ib.*
Customs	36	*ib.*
Salt	37	xii
Opium and Excise	38	*ib.*
Stamps	39	*ib.*
Assessed Taxes	40	*ib.*
Imperial Expenditure	41	*ib.*
Provincial Revenues	42	*ib.*
Local Funds	43	xiii
Municipal Revenues	44	*ib.*
Births and Deaths	45	*ib.*
Medical Relief	46	xiv
Sanitation	47	*ib.*
Vaccination	48	xv
Education	49	*ib.*
Archæology	50	xvi

PART II.

CHAPTER I.

Physical and Political Geography.

	Page
Physical Features of the Country, Area, Climate and Chief Staples	See pages 10 to 12 of Part II of Report for 1901-2

Political

Historical Summary	See pages 6 to 10, 15 to 16 and 21 to 26 of Part II of Report for 1901-02.
Character of Land Tenures	
Civil Divisions of British Territory	
Details of the last Census; Tribes and Languages	
Form of Administration	See page 11 of Part II of Report for 1907-08

System of Survey and Settlements (Lower Burma).

Cadastral Survey	1	2
Supplementary Survey	2	*ib.*
System of Settlement	3	3
Assessment of fallow land	4	*ib.*
Remissions	5	4

System of Survey and Settlements (Upper Burma).

Survey	6	4
Settlement	7	*ib.*
Supplementary Survey	8	5

Changes in the Administration.

The Lieutenant-Governor	9	6
Administrative territorial units	10	*ib.*
Additions to and changes in the Administrative Staff	11	*ib.*

Relations with Tributary States and Frontier affairs.

(*i*) *Shan and Karenni States.*

General	12	6
Principal events of the year	13	7
Internal affairs	14	*ib.*
Public Works	15	8
Mines and Minerals	16	*ib.*
Forest Administration	17	9
Education	18	*ib.*
Medical and Vaccination Departments	19	*ib.*

(*ii*) *The Chin Hills.*

Frontier Tribes	20	9
Chin Hills proper	21	10
Pakôkku Hill Tracts	22	*ib.*
Arakan Hill Tracts	23	*ib.*

(*iii*) *The Kachin Hills.*

Chinese Border	24	10
Unadministered Territory	25	11
Internal Administration	26	*ib.*
Forests	27	*ib.*

Condition of the People.

———	28	11

CHAPTER II.

Administration of the Land.

Realisation of the Revenue.

Demand, recoveries, remissions and outstandings	29	13
Coercive processes	30	14

Surveys.

Demarcation preliminary to Survey	31	14
Surveys by Imperial Agency	32	*ib.*
Surveys by Provincial Agency:— (i) Revision Surveys	33	*ib.*
Surveys by Provincial Agency:— (ii) Extension Surveys	34	15

Settlements.

	Para.	Page.
General progress of Settlement	35	15
Operations of the year	36	*ib.*
Settlements in progress	37	16

Land Records.

Area under Supplementary Survey	38	16
Cost of Supplementary Survey	39	17
Survey Schools	40	*ib.*
Transfers of land	41	*ib.*

Waste Lands.

Grants and leases for cultivation	42	18
Revenue-free grants	43	*ib.*

Government Estates and Wards' Estates.

———	44	18

Revenue and Rent-paying Classes.

Land revenue paying classes	45	18
Tenants	46	*ib.*

CHAPTER III.

PROTECTION.

LEGISLATIVE AUTHORITY	See pages 33 and 34 of Report for 1901-02.	

Course of Legislation.

Work of Legislative Council	47	20
General Acts affecting Burma	48	21
Extension of Acts to the Shan States	49	22

Police.

Strength, distribution and cost	50	22
Recruitment and conduct	51	*ib.*
Education and training	52	*ib.*
Buildings	53	23
Crime and the working of the Police	54	*ib.*
Detection	55	24
Preventive sections	56	*ib.*
Surveillance and identification	57	*ib.*
Railway Police	58	*ib.*
Military Police	59	25
Punitive Police	60	*ib.*
Village Administration	61	*ib.*
Wild animals and snakes	62	26
Rangoon Town Police	63	27

Criminal Justice.

Courts	64	28
Disposal of cases	65	*ib.*
Punishments	66	29
Appeals	67	*ib.*
Revisions	68	*ib.*

Prisons.

Accommodation	69	29
Prisoners	70	30
Discipline	71	*ib.*
Financial	72	*ib.*
Vital	73	31

Civil Justice.

Courts	74	31
Volume and classification of litigation	75	*ib.*
Disposal of cases	76	32
Execution of decrees	77	*ib.*
Insolvency proceedings	78	*ib.*
Appeals	79	*ib.*

Registration.

General	80	32
Deeds registered	81	33
Income and expenditure	82	*ib.*

Joint Stock Companies.

Number of Companies	83	33
Capital	84	*ib.*
General	85	34

Local Boards Administration.

———	86	34

	Para.	Page.
Municipal Administration.		
Rangoon Municipality	87	34
Minor Municipalities and their Committees	88	*ib.*
Minor Municipalities: taxation	89	*ib.*
Minor Municipalities: public health and convenience	90	35
Military.		
Strength of the garrison	91	35
Military works	92	*ib.*
Military (Volunteering).		
———	93	36
Marine.		
Light-houses and light-ships	94	36
Port Administration, Rangoon	95	*ib.*
Pilot Service, Rangoon	96	37
Minor Ports	97	*ib.*
Commercial Marine	98	38
Commercial Marine: wrecks and casualties	99	*ib.*
Government steamers and launches	100	*ib.*
Marine works and surveys	101	39

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

Agriculture.		
Agricultural stock and cattle disease	102	40
Pony and cattle breeding	103	*ib.*
Prices	104	41
Agricultural loans	105	*ib.*
Co-operative Credit Societies	106	42
Protection from floods	107	*ib.*
Area irrigated	108	*ib.*
Weather and Crops.		
Character of the Seasons	109	43
Area under cultivation	110	*ib.*
Cropped area	111	*ib.*
Area under various crops	112	44
Experimental cultivation	113	*ib.*
Horticulture.		
Agri-Horticultural Societies	114	45
Experimental gardens	115	46
Forests.		
Forest Reserves	116	46
Demarcation and Surveys	117	47
Working-plans	118	*ib.*
Communications and buildings	119	*ib.*
Forest offences	120	48
Protection of forests	121	*ib.*
Plantations and experimental cultivation	122	*ib.*
Extraction and sale of timber	123	49
Miscellaneous	124	*ib.*
Mines and Quarries.		
Grant of new concessions	125	49
Petroleum	126	50
Gold	127	*ib.*
Rubies	128	*ib.*
Other minerals	129	*ib.*
Quarry stones	130	51
Manufactures.		
Principal industries	131	51
Factories	132	*ib.*
Trade.		
Maritime Trade—Total value	133	52
Foreign Imports—Rangoon	134	*ib.*
Foreign Imports—Minor Ports	135	53
Foreign Exports—Rangoon	136	*ib.*
Foreign Exports—Minor Ports	137	54
Coasting Trade	138	55
Transfrontier Trade	139	*ib.*
Western China	140	*ib.*
Northern Shan States	141	*ib.*
Southern Shan States	142	56
Northern Siam	143	*ib.*
Southern Siam	144	*ib.*
Karenni	145	*ib.*

	Para.	Page.
Public Works.		
General	146	56
(i) Roads and Buildings.		
Communications	147	57
Metalled roads	148	*ib.*
Unmetalled Roads	149	58
Communications—Miscellaneous	150	*ib.*
Buildings—Imperial	151	*ib.*
Buildings—Provincial	152	*ib.*
Miscellaneous	153	59
(ii) Railways and Tramways.		
Railways—Construction	154	59
Railways—Interruptions and accidents	155	60
Railways—Finance and traffic	156	*ib.*
Tramways	157	*ib.*
(iii) Canals.		
Navigation Canals	158	61
Irrigation.		
Major Works, Imperial—(i) Completed works	159	61
Major Works—(ii) Works under construction	160	62
Minor Works—Provincial	161	*ib.*
CHAPTER V.		
REVENUE AND FINANCE.		
Gross Revenue.		
———	162	63
(a) IMPERIAL REVENUE AND FINANCE.		
Land Revenue.		
Land revenue receipts	163	63
Canal (Navigation and Irrigation) Revenue.		
———	164	64
Sources of Imperial Revenue other than the Land.		
Customs	165	64
Opium	166	*ib.*
Salt	167	65
Excise	168	*ib.*
Stamps	169	66
Assessed Taxes	170	*ib.*
Forests	171	67
Imperial expenditure	172	*ib.*
(b) REVENUE AND FINANCE OTHER THAN IMPERIAL.		
Provincial Revenues.		
Provincial receipts	173	68
Provincial expenditure	174	*ib.*
Local Funds.		
General	175	69
District Cess Funds	176	*ib.*
District Funds	177	*ib.*
Other Local Funds	178	70
Road and Education Cesses.		
———	179	70
Municipal Revenues.		
Rangoon Municipality	180	70
Other Municipalities	181	71
Other Funds.		
———	182	71
Paper Currency.		
———	183	72
CHAPTER VI.		
VITAL STATISTICS AND MEDICAL SERVICES.		
Births and Deaths.		
Number of births and deaths	184	73
Causes of death	185	74

Emigration and Immigration.

		Para.	Page.
———		186	75

Medical Relief.

Hospitals and Dispensaries	187	75
Attendance	188	*ib.*
Expenditure	189	76
Miscellaneous	190	*ib.*
Government Medical School	191	*ib.*
Lunatic Asylums	192	77

Sanitation.

Expenditure	193	77
Water-supply	194	*ib.*
Conservancy	195	78
Sanitary Board	196	*ib.*

Vaccination.

———	197	78

CHAPTER VII.

INSTRUCTION.

GENERAL SYSTEM OF PUBLIC INSTRUCTION		See pages 77 to 83 of Part II of Report for 1907-08.

Education.

Number of schools and scholars and expenditure	198	80
Primary Education	199	*ib.*
Secondary Education	200	81
Collegiate Education	201	*ib.*
Technical Education	202	82
Training Schools	203	*ib.*
European Education	204	*ib.*
Education of Special Classes	205	83
Female Education	206	*ib.*
Insein Reformatory School	207	*ib.*

Literature and the Press.

Publications registered	208	84
Presses, Newspapers and Periodicals	209	85

LITERARY SOCIETIES.

———		See page 101 of Report for 1901-02 and page 63 of Part II of Report for 1904-05.

Arts and Sciences.

———	210	85

CHAPTER VIII.

ARCHÆOLOGY.

———	211	86

CHAPTER IX.

MISCELLANEOUS.

ECCLESIASTICAL JURISDICTION		See page 104 of Report for 1901-02.

Ecclesiastical.

———	212	87

Stationery.

———	213	87

Chemical Examiner and Bacteriologist.

———	214	87

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR 1908-09.

PART I.

GENERAL SUMMARY.

Changes in the Administration.

The Hon'ble Sir Herbert Thirkell White, K.C.I.E., was Lieutenant-Governor of Burma throughout the year under report. The changes which were made in the framework of the administrative machinery during that period were neither numerous nor of special importance. The re-organisation of the Police, mainly carried out in the previous year, was completed by a small addition to the numbers of Assistant and Deputy Superintendents which experience had shewn to be necessary. Reforms which were intended to enable the Secretariat to cope with the increasing volume of work with which it has to deal were sanctioned and partially effected. Excise establishments were removed from the control of Superintendents of Police in all districts and placed in direct subordination to Deputy Commissioners. A re-organisation of the Land Records Department involving a substantial increase both in the numbers and in the pay of Superintendents was carried out. In consequence of the reduction in the amount of money available for public works the establishment of that Department was curtailed by the abolition of several divisions and of the appointment of Superintending Engineer Architect.

Frontier affairs.

2. Relations with China and the tribes on the north-eastern frontier remained peaceful and friendly throughout the year. The offenders in the only raid reported were villagers in administered territory, while the victims lived beyond the border. The affair was of a petty nature and was settled by the levy of a fine and the payment of compensation. The usual meeting of frontier officers was attended for the first time by the *Taotai* of Têngyüeh and was more than usually successful, a large number of important and longstanding frontier cases being finally settled. The Deputy Commissioner of Myitkyina succeeded in putting an end to a blood-feud of long standing between two Kachin tribes which had been for years a menace to the peace of the frontier. Within the administered tracts of the Kachin Hills the year was uneventful. Crime was not heavy, tribute was collected without difficulty and civil officers in the Hills made the usual tours, in the course of which much useful work was accomplished. The Jade Mines gave some trouble during the year owing to the minority of the ruling Chief and the inability of the administrator to enforce his

authority to suppress the constant disputes among the mine-owners. The Burma Gold Dredging Company continued operations in the Irrawaddy above Myitkyina. From the administrative point of view, their enterprise is useful in providing remunerative occupation to the hill people living near its banks.

The Shan States and Karenni.

3. The Lieutenant-Governor visited the headquarters of both the Northern and the Southern Shan States and held a Darbar at Taunggyi. Steady progress continued to be made in the improvement of the administration of the various States. In this respect the change in the Northern States, which have a larger area and greater revenue than those in the South, within a few years has been specially noticeable. From a condition of semi-bankruptcy with indolent, apathetic and extravagant Chiefs, they have become thoroughly solvent, the debts of the Chiefs have been paid in full, large sums have been spent and are waiting to be spent on works of public utility, and the Chiefs have taken an intelligent interest in the work of administration. In material welfare there has been throughout the States a steady and marked advance. The sanction of the Secretary of State to the construction of the Southern Shan States Railway has been received since the close of the year. The crops were on the whole fair and the health of the people satisfactory, but serious losses were caused by the ravages of cattle disease. The difficult questions which are raised by the progressive denudation of the country of forests were fully considered during the year, and the policy to be adopted in respect of the preservation of the forests was settled. As in former years, considerable sums were devoted by the Chiefs to the improvement of communications and other works of public utility.

The Chin Hills.

4. With the exception of one petty raid from a transfrontier village into Northern Arakan, which was settled without trouble, the condition of the Chin Hills was profoundly peaceful. The prosperity of the Hill Tracts continues to advance, crime is light and a secure foundation at least of the work of civilisation in the Hills has been laid by the Medical and Educational work of Government and Missionaries. In the country west of the Upper Chindwin District a Kaungsè Chief named Komyang seems to be building up a power for himself by conquest in the Komra Hill Tract, but he has so far carefully respected the administrative frontier, and it is not the policy of Government to interfere in tribal disputes beyond the border.

Realisation of land revenue.

5. The progressive annual increase in the land revenue demand, the rate of which fell below the normal in 1907-08 in consequence of an unfavourable agricultural season in Upper Burma, resumed its ordinary course in 1908-09 with an increase of twelve and a half lakhs, nearly the average of the previous decade. The amount of the demand remitted was less than in the preceding year, and practically the whole of the balance was collected within the year, the amount outstanding at the close being negligible. The ease with which the revenue was collected received a striking illustration in the large decrease in the number of coercive processes of all kinds issued during the year.

Surveys.

6. In accordance with the orders of the Government of India no cadastral surveys were carried out in Burma by the Survey of India Department in 1908-09. Revision Surveys, rendered necessary when the maps of the Supplementary

Survey Department have from any cause become obsolete, and Extension Surveys of tracts outside the area under Supplementary Survey where extensions of cultivation call for assessment, were undertaken in several districts. The preparation of accurate plans of all the towns in the Province, which has been in progress for several years, was nearly completed. A survey of lands which will become available for cultivation on the opening of the Môn Canal in the Minbu District was undertaken and partially carried out.

Settlements.

7. Five settlement parties were at work in six districts. The original settlement of the Lower Chindwin District and the revision settlement of the first circuit of the Thatôn District were completed. Operations were begun in the revision settlement of the canal tract of the Shwebo District and the second circuit of Thatôn, and the original settlement of the Pakôkku District and the revision settlement in Hanthawaddy were continued. The total expenditure on settlement was about five lakhs. No new rates were notified during the year, but the new rates in the Amherst and Pyapôn Districts, yielding an enhancement of revenue of 28·70 per cent., which had been provisionally notified in 1907-08, were confirmed.

Land Records.

8. The Land Records Department, whose duties in connection with the assessment and collection of the land revenue are of great importance, continued to work with smoothness and efficiency. The area under Supplementary Survey continues to expand year by year, and in 1907-08 it was found that the staff of the Department was numerically insufficient to cope with the work falling on it. A scheme for its complete re-organisation, which provided considerable increases in the number and pay of the Superintendents, together with revised rules for the appointment and training of probationary Superintendents, was brought into operation during the year. One of the results has been an increase in the cost of Supplementary Survey. The District Survey schools were carried on as in previous years and continued to provide a constant supply of trained surveyors.

Transfers of land.

9. There was a substantial decrease both in the area of land sold and in the area mortgaged during the year, mainly in consequence of the favourable season. The rise in the value of land continued, the average sale rate per acre being two rupees more than in the previous year. The Hanthawaddy District was pre-eminent both in the number of transactions and in the prices realised. The transformation of the vicinity of Rangoon from a purely agricultural to a residential and industrial district is responsible for this result. The area of land redeemed, though less than in 1907-08, was greater than the area mortgaged, and less land was under mortgage at the close than at the beginning of the year.

Disposal of waste lands.

10. The area for which grants were issued was larger than in the previous year. There were substantial increases in the areas granted free for religious and public purposes. A prosperous season left a larger surplus to be expended on such objects. Further progress was made with the provision of appanages for headmen of village-tracts in the shape of grants of land held free of revenue.

Revenue and rent-paying classes.

11. There was a very slight increase in the proportion of the whole area of cultivated land in the possession of agriculturists. The number of tenants increased slightly, but the percentage of the total occupied area in their possession

was rather less than in the previous year. There was a noticeable increase in the number of tenants who had been in occupation of the same land for five years or more in Lower Burma, which may point to the gradual formation of a class of permanent tenants. Rents being paid as a rule in kind, the fall in the price of rice resulted in a much lower average money rent per acre than in the previous year. The Burma Tenancy Bill was considered in the Local Legislative Council, but its passing was deferred. An officer was on special duty during the year to conduct an enquiry into the general position and indebtedness of the cultivating classes in the Irrawaddy Division.

Legislation.

12. Four bills were passed by the Provincial Legislature and became law during the year ending on the 31st March 1909. The Rangoon Port (Amendment) Act, 1908, modified the Rangoon Port Act by removing the prohibition on the issue of 'bearer' debentures and allowing coupons attached to debentures issued under the Act to be impressed with the lithographed signature of the Chairman. The British Burma Pilots Act Amendment Act, 1908, made some changes in the procedure for the investigation of charges of incompetence and misconduct brought against Pilots. The Prohibition of Inoculation and Licensing of Vaccinators Act, 1908, gave power to prohibit the practice of inoculation in districts to which the Act might be applied, and provided for the licensing of vaccinators. The Vaccination Law Amendment Act, 1909, was passed in order to provide for the compulsory vaccination of the Indian labourers who flock to Rangoon every year in large numbers during the rice-milling season. The powers conferred by the previous Act of 1900, which was repealed by the present Act, had been found to be insufficient to effect their purpose. The Indian Arms Act, 1878, was extended to three places in the Shan States, and the Burma Village Act, 1907, was extended to the State of Möng Mit.

Police.

13. The re-organisation of the Police in accordance with the recommendations of the Police Commission was for the most part completed in 1907, and the changes which remained to be effected in the year of report were not numerous. This is the first year in which the new organisation has been seen in actual operation and the period is too short for the formation of any conclusions as to its final results. A deficiency in the number of officers of the grade of Sub-Inspector was reported. The number of probationers trained in the Provincial Police Training School was insufficient to fill the proportion of the total number of vacancies allotted to them by the new scheme. Complaints of the difficulty of obtaining recruits in certain districts were still received, the reason assigned being that the increase in the pay of the lower ranks of the force was not sufficient to counterbalance the greatly decreased chances of promotion which the increase in the number of direct appointments to the higher grades involves. The volume of crime and more particularly of serious crime in the Province appreciably increased during the year. The increase was most marked in the cases which are classified as serious offences against the person, murder, rape and grievous hurt. The number of dacoities, robberies, and house-breakings also increased. There was, on the other hand, a gratifying decrease in the number of cattle-thefts. The measure of success attained by the Police in dealing with crime remained about the same as in the previous year. The period of transition between the old Police system and the new can hardly yet be said to be at an end. The reforms of the Police Commission have not had time to bear their full fruit, and a shortage of senior

officers during the year seriously hampered the efficiency of the force. The Military Police performed their duties in a satisfactory manner. No changes of importance were made in the strength or distribution of this force during the year.

Criminal Justice.

14. There was an increase in the number of serious offences dealt with by the Courts during the year, the natural result of the increase in crime which has been noted in connection with the working of the Police. There was, however, but little variation in the total volume of crime which was dealt with, and the statistics present no features worthy of special note. An addition of one was made to the number of Sessions Judges in Lower Burma, and Sessions Divisions were in consequence re-arranged. The decrease in the number of prosecutions under the preventive sections of the Code of Criminal Procedure is the result of orders issued to ensure that more care should be exercised before the institution of such proceedings. There was a further decrease in the number of sentences of whipping inflicted. The tendency to inflict short sentences of imprisonment when other forms of punishment were available was still observable. An increased use was made of the provisions of the Reformatory Schools Act. Substantial assistance in the work of the administration of the criminal law continued to be afforded by the Honorary Magistrates.

Prisons.

15. The old jail at Moulmein was evacuated during the year and the prisoners moved into the new jail, which accommodates slightly smaller numbers. The result was a slight decrease in the total jail accommodation of the Province, which, however, proved quite sufficient. There was again an increase in the daily average number of persons confined in jail, but a decrease in the total number in confinement at the end of the year. A large number of prisoners were released in celebration of the fiftieth anniversary of the assumption by the Crown of the direct Government. The increase of over fifty per cent. in the number of boy prisoners under sixteen years of age admitted to jail during the year occasioned some anxiety and measures were taken to investigate the causes of the evil and if possible provide a remedy. The unsuitability of imprisonment as a punishment for juvenile offenders was pointed out to all Judges and Magistrates. The conversion of the Meiktila Jail into a jail for juvenile offenders from all parts of the Province who cannot suitably be dealt with in reformatoires was sanctioned. The end in view is to make the discipline rather of a reformative than of a punitive character. The separation of habitual offenders from other prisoners has now been carried as far as is possible until further funds for the re-construction and alteration of existing buildings are available. In the Insein, Myingyan and Mandalay Central Jails the supervision of habitual offenders by paid warders exclusively was introduced during the year, but it is not yet possible to report definitely on the results of the experiment. There was a considerable increase during the year in the cost of the prison administration, and the gross and net cost per head of the jail population also increased. The principal causes were the increase in numbers and pay of the warder establishments and the exceptionally high prices of food-stuffs which prevailed throughout the year. The health of the prisoners was not so good as in 1907, which was an exceptionally healthy year. Even so, however, the rates of sickness and mortality were very low and shew the success which has attended the continuous and earnest attention paid to sanitary matters. The statistics of punishments shewed an increase over those of the preceding years, in consequence of

the efforts of Superintendents to enforce the performance of a proper amount of work by prisoners. Habitual criminals were responsible for over fifty per cent. of the prison offences which were committed. The number of escapes increased from six to eleven.

Civil Justice.

16. In the course of the year, a new Divisional Judgeship was created in Lower Burma. In consequence of the congestion of business and the accumulation of arrears in the Chief Court of Lower Burma and the Court of the Judicial Commissioner of Upper Burma, a fifth Judge was appointed to the former and an Additional Judge to the latter during part of the year. It became evident, however, that these remedies were insufficient, and the subject of a permanent increase to the staff of both Courts has been under the consideration of Government. The decrease in the total number of suits instituted in the Courts, which was remarked in 1907, continued during the year of report and was most noticeable in Lower Burma. Though a complete exposition of the causes of this decline is impossible it is generally agreed that it is largely due to the restriction of business by money-lenders from the Madras Presidency, which has been going on for several years, and which led both to the expansion of the volume of litigation which marked the years 1905 and 1906 and to the subsequent contraction. The efforts of Government to improve the administration of justice by paying careful attention to the personnel of the Judicial Service were continued throughout the year and in Lower Burma were rewarded with a fair measure of success. The average duration of cases was still high, a result to a great extent of the congestion of business in the two High Courts of the Province.

Registration.

17. New rules and directions were issued during the year in order to render the Upper Burma Registration of Deeds Manual complete in itself and to do away with the necessity for supplementing it by reference to the Indian Registration Act and Rules. In Lower Burma there was a small increase in the number of deeds of sale registered, but a decrease in the value of the property to which they related. There was a marked decrease in numbers and value of deeds of mortgage. This decrease was principally due to the enforcement of the rules which prohibit the sale or mortgage of lands held on lease or grant in violation of the conditions of the lease or grant, to the stringency of the money market, to the collapse of the speculation in land in Rangoon and to a minor extent to proposed land legislation. In Upper Burma the number of deeds of sale registered increased, but their value diminished greatly owing to the inclusion in last year's figures of two documents of exceptionally high value. The number and value of deeds of mortgage increased, as the result of the extension of irrigation and increased activity in the oil-winning industry.

Municipal Administration.

18. The number of Municipalities in the Province was 44, the same as in the previous year. In Rangoon the Municipal Committee continued to devote attention to the solution of the numerous problems which arise in the administration of a rapidly growing commercial town with an extremely mixed population. The proposal to establish a model cow-keepers' village under Municipal auspices was given up and it was decided to fall back on strict supervision of the present milk supply. Plague and cholera were less prevalent than in the preceding year and the death-rate was lower.

The other 43 Municipalities of the Province had on the whole a prosperous year. They shared in the partial revival of trade which accompanied a good harvest, and with the exception of Akyab, which was devastated by a cyclone in November, did not suffer from any great natural calamity. The ravages of plague were not so severe as in the previous year except in Mandalay, and the burden of expenditure on this account was somewhat lightened. The annual grant of 3 lakhs for sanitary improvements was again fully distributed. The water-works at Akyab were finally completed during the year.

19. The strength of the garrison remained practically the same as in previous years. The expenditure on Military works was less by four and a half lakhs of rupees than in 1907-08. The new buildings for the accommodation of troops in Maymyo were nearly completed. The Volunteer movement continued to prosper, there being an increase both in numbers and efficiency. **Military.**

20. There was a slight decrease in the number and tonnage of vessels entering the Port of Rangoon in 1908-09 as compared with the figures for the previous year. The revenue of the Port Trust, however, continued to expand in consequence of the great expansion of inland trade which resulted in a large increase in the amount realised from wharfage dues. Progress was continued on the series of new works which within the past few years have transformed the appearance and multiplied the usefulness of the Port. The new wharves, except the last section on which a commencement was made, were practically completed. A beginning was made with the scheme for laying the first block of six fixed moorings. In connection with the river-training scheme the Chairman of the Port Commissioners, after an extended tour in the course of which he visited the principal river works in the world, formulated proposals which were generally approved by the Government of India. Preparation of a detailed scheme is now in progress, and preliminary operations were started during the year of report. Work was begun on the quarries which are destined to supply the large quantities of stone which will be required. The number of Rangoon pilots was increased by three and a change made in the system of paying the Harbour Masters. The formation of an Advisory Board consisting of three official and four non-official members to assist the Port Officer in his administrative duties was sanctioned for each of the Ports of Akyab, Bassein and Moulmein. A new light was exhibited for the first time at Victoria Point and good progress made with the erection of a new light-house on Beacon Island. A scheme for the improvement of the existing lights on the coast of Burma was sanctioned and work on two light-houses completed, while two others were in hand at the close of the year. **Marine.**

21. The condition of the Provincial finances rendered it impossible to complete the organisation of the Agricultural Department on the scale originally contemplated. The equipment of an Agricultural Station at Mandalay was pushed on during the year and nearly completed, but the land which had been acquired for the purpose of an Agricultural Station for Lower Burma at Hmawbi was leased out to cultivators, and the acquisition of land for a third Station at Meiktila was postponed. It was decided that the time was not yet ripe for the establishment **Agriculture.**

of an Agricultural College in Burma. The most gratifying feature of the year was the great interest taken in the work of the Department by the commercial classes and the general body of agriculturists. The returns of livestock shewed an appreciable increase in number over those of the previous year. In Burma proper the damage done by the ravages of disease was the smallest for many years, but losses from this cause were heavy in the Shan States. Prices of the principal crops were at or above normal in nearly all districts, but the very high level of the previous year was not maintained. The formation of Co-operative Credit Societies went on with increased rapidity, the number in existence at the end of the year being nearly twice as large as at its beginning, while large numbers of applications could not be entertained. One Agricultural Bank was founded and began operations in the Pakôkku District.

Weather and Crops.

22. The season was generally favourable both in the Upper and Lower Divisions of the Province. A partial drought in July and August did some damage to crops in the Mandalay and Meiktila Divisions and the failure of the Irrawaddy and Chindwin rivers to attain their usual flood level, while it rendered impossible the cultivation of some lands in Upper Burma which depend on the overflow of these rivers for irrigation, probably prevented the destruction by floods of crops on lowlying lands in the Delta. Heavy rains in November which culminated in a destructive cyclone in the Arakan Division probably caused the rice crop in Lower Burma to thresh out lighter than had been expected, but on the whole did more good than harm in the districts of the dry zone where the season in some parts was reported as the best since the establishment of British rule. There was a large increase in the area cropped and the area on which crops failed to mature was much less than in the preceding year. The expansion of the area devoted to cultivation of groundnuts continued.

Experimental cultivation.

23. Experiments in connection with the cultivation of rice, jute, wheat and cotton were carried out on the Agricultural Department farm at Mandalay. An attempt to cultivate cotton in Lower Burma again resulted in failure. In the Experimental Garden at Sinlumkaba in the Kachin Hills of the Bhamo District interesting experiments in the terraced cultivation of wheat and oats were carried out with a fair measure of success. At Mandalay extensive investigations were undertaken in order to discover if possible a disease-resisting variety of groundnut. In the districts numerous other experiments in the cultivation of several crops were undertaken under the superintendence of the Agricultural Department with varying success.

Horticulture.

24. The Experimental Gardens in the Province were under the management of the Agricultural Department. It was found impossible to carry on that at Katha with any prospect of useful results and it was given up. In Myitkyina, the Shan States and the Chin Hills useful work was done in the cultivation of fruit and vegetables, but it is impossible to say from the results that the success of exotic fruit trees in any part of the Province is yet assured. The Agri-Horticultural Society of Burma completed the improvements in its garden and held a Flower and Vegetable Show during the year. The Tenasserim Agri-Horticultural Society, though it continued in existence, issued no report.

25. Satisfactory progress was made in the settlement of tracts to be maintained as reserved forests. The question of the influence of forest preservation on climate in the dry zone was under the consideration of Government and proposals for the reservation of areas in the Magwe Division in order to prevent the destruction of forests at the headwaters of streams were prepared. The demarcation of the boundaries of new forest reserves proceeded and a considerable reduction was effected during the year in the length of boundary which remained to be demarcated. A considerable sum was expended on the maintenance in repair of previously demarcated boundaries. Working-plans for a large area of reserved forests were prepared and sanctioned. As in previous years considerable sums were expended by the Forest Department in the construction and maintenance of roads and paths and in this respect co-operation between the Forest and District authorities proved very useful in rendering the forests more accessible. There was an increase in the number of forest offences reported, principally in the Pegu Circle, where the exhaustion of marketable timber outside the forest reserves in many districts has increased the temptation to illicit extraction from the Government reserves. The measures adopted for the protection of forests from fire were on the whole very successful. No satisfactory offer having been received for the lease of the rubber plantation at Mergui, its management by the Forest Department was continued. There was a large increase both in the number of trees girdled and in the quantity of timber extracted. A re-organisation of the clerical establishment of the Forest Department was carried out during the year. The gross receipts from the forests were nearly three lakhs more than in the previous year. Expenditure also increased but not to the same extent and the surplus revenue which is divided between Imperial and Provincial Revenues was 1·62 lakhs in excess of that of 1907-08. Forests.

26. Prospecting for minerals continued to be energetically pursued. There was a large increase in the output of petroleum. Four new Companies were formed and the development of the Yenangyaung fields was pushed on. The Burma Gold Dredging Company continued work on the upper reaches of the Irrawaddy above Myitkyina. In the Northern Shan States the Burma Mines Company continued their operations. The quantity of tin produced was larger than in the previous year, but its value was less in consequence of the fall in prices. The development of the quarries of gneissic granite in the Thatôn District which began in 1907-08 proceeded during the year of report, and the Rangoon Port Commissioners continued their preparations for the opening of extensive quarries on Kalagauk Island. Mines and Quarries.

27. There was no change of importance in the character of the staple industries of the Province. The number of factories continues to shew a steady increase. Manufactures.

28. The figures of maritime trade shewed a decrease of 4 per cent. when compared with the previous year's total. There was a large expansion of imports, which was however counterbalanced by a serious contraction in the volume of exports. The foreign trade of the Province for the first time shewed an excess in value of imports over exports. The scarcity in India led to the diversion on a large scale of rice exports to that country, and a consequent diminution in the quantity shipped to foreign countries. The lateness of the season and the lower Sea-borne Trade.

level of prices had their effect in causing supplies to come forward more slowly and at the end of March it was estimated that only 38 per cent. of the available surplus had been exported as compared with 48 per cent. in 1908. The year 1908-09 was a period of universal depression in trade and its effects were visible in Burma as elsewhere.

Transfrontier Trade.

29. The value of the inland trade also receded during the year though still remaining greater than in 1906-07. A gratifying increase in the volume of trade with the Northern Shan States was perceptible, but elsewhere trade shewed a tendency to contraction.

Public Works—(i) Roads and Buildings.

30. The expenditure on buildings on the Imperial list was greater than in the previous year. Sites for a new Telegraph Office in Rangoon and a new General Post Office in Mandalay were purchased under the provisions of the Land Acquisition Act. The new Currency Buildings in Rangoon were brought into occupation. The expenditure on Roads and Buildings from Provincial funds was much less than in 1907-08. The new General Hospital and the new Chief Court building in Rangoon were approaching completion at the close of the year. Work on the new Government Press building was stopped on account of want of funds after the foundations were laid. The new Police Training School and the new Jail at Moulmein were occupied during the year. The fencing and farm buildings of the Agricultural Department farm at Mandalay were completed. The amount expended on communications was less than in the previous year. Existing roads were maintained in a condition of efficiency but the funds available were not sufficient for the construction of the same length of new roads. The discovery of granite quarries in the Thatôn District has opened out a prospect of obtaining abundant supplies of metal for roads in the stoneless tracts of the Delta, where formerly burnt clay was the only material available for the surface. Progress was made in the replacement of existing old wooden bridges on roads by permanent structures of reinforced concrete or steel girders.

Public Works—(ii) Railways and Tramways.

31. The only railway line opened to traffic during the year was the last section of the Henzada-Kyangin extension, from Danbi to Kyangin. The survey of the projected Southern Shan States Railway was completed and the sanction of the Secretary of State to the construction of the line has been received since the close of the year. The survey of various other lines was in progress. As in most years interruptions to traffic were caused from time to time by floods during the rainy season, but in only two cases was the interruption of over twenty-four hours duration. One serious accident, involving the loss of nine lives, occurred. Capital expenditure during the year was less by thirteen lakhs of rupees than in 1907-08. The net earnings were nearly 5½ lakhs better and the percentage of net receipts to capital outlay rose from 4·28 to 4·39. The Thatôn-Duyinzeik Tramway was dismantled and the materials sold for use on the Mandalay-Madaya Light Railway, the construction of which was still unfinished at the close of the year. The number of passengers carried by, and the receipts of, the Rangoon Electric Tramways continued to increase, but the statistics of the similar undertaking in Mandalay were less satisfactory.

32. The only canals in the Province primarily intended for navigation, the Twante, Pegu-Sittang and Sittang-Kyaikto Canals, remained open during the year. There was an increase in the amount and value of the merchandise passing through the two canals last mentioned, but despite a decrease in working expenses the net revenue derived from them was less by five thousand rupees than that of the previous year. Proposals for widening and deepening the Twante Canal were formulated and will, it is hoped, soon be carried into effect. Public Works—(iii) Canals.

33. There was again a substantial expansion in the area irrigated from the Shwebo and Mandalay Canals, the net revenue from which yielded a satisfactory return on the capital expended on their construction. The work of construction on the Môn Canals in the Minbu District was continued throughout the year and considerable progress made towards completion. A new survey and project for the Ye-u Canal were prepared and submitted and part of the line of the Main canal was demarcated. Minor irrigation works were kept in order and improved where necessary and the area irrigated by them was greater than in the previous year. Irrigation.

34. The gross receipts of the Province, including Imperial, Provincial and Local Funds, were nearly a crore of rupees in excess of those of the previous year. Of this total increase, however, 84 lakhs appear in the accounts as an increase of the receipts of Local Funds and consist to a very large extent of the proceeds of loans raised by the Rangoon Port Trust and the Rangoon Municipality during the year. The increase in the receipts credited to Imperial and Provincial Funds was about fifteen and a half lakhs. The branch of the revenue which made the most conspicuous progress was that classified as Land Revenue. Provincial expenditure increased slightly while Imperial expenditure was rather less than in the previous year, but increased activity in the construction of works on capital account by the Rangoon Port Trust and Rangoon Municipality caused an increase in the gross expenditure of fifty-four and one-third lakhs of rupees. Gross Revenue.

35. The gross land revenue of the Province exceeded that of the previous year by 23·59 lakhs. There was an improvement under all heads chiefly on account of the favourable agricultural season. The demand of ordinary land revenue increased by twelve and a half and the collections by fourteen lakhs. There were substantial increments in the receipts from capitation-tax in Lower Burma and *thathameda* in Upper Burma. The fisheries had a successful year and the revenue from this source, which as a result of a combination of unfavourable circumstances had been declining for some years, rose by over two lakhs. An extraordinary outburst of activity in the petroleum industry resulted in an increase of revenue from royalties of 4½ lakhs. The Burma Gold Dredging Company made their first payment on account of royalty on gold won, but the Ruby Mines Company had not recovered from the depression in the market, and payment of their rent had to be postponed. Imperial Revenue and Finance—Land Revenue.

36. There was a fall of eleven lakhs in the revenue derived from Customs on a comparison with the previous year. The import duties shewed a substantial increase, but the diversion of rice exports to India caused a very large decrease in the amount collected as export duty. Customs

Salt.

37. A special enquiry into the local conditions of the salt industry was completed and the report submitted after the close of the year. Pending the decision of the various points raised in this report no change was made in the policy of Government with regard to salt. There was an increase both in the quantity of salt produced locally and in the quantity imported, and the consumption was greater than in the previous year. The popularity of salt imported from the United Kingdom declined in favour of imports from Germany, Aden and Asiatic Turkey. The revenue increased in consequence of the increase in the amount of salt consumed, but the stocks in bond at the end of the year were very large.

Opium and Excise.

38. The policy of Government in recent years with regard to opium was maintained in the year of report. As a result principally of the decrease in the quantity of opium sold from licensed shops the revenue for the year was five lakhs less than in the previous year. The quantity of illicitly imported opium seized by the Excise staff during the year was large, but that the traffic as a whole appreciably increased has not been established. There is a consensus of opinion that the spread of the taste for opium among Burmans has been checked. On the other hand, there were indications that illicit consumption of cocaine was on the increase.

Various changes in the rules under the Excise Act were made in accordance with the orders of the Government of India on the Report of the Indian Excise Committee. An enquiry into the numbers and location of liquor shops was held and some changes were made. The extension of the contract distillery system beyond the Tenasserim Division was delayed for financial reasons. The revenue derived from Excise shewed a substantial increase.

Stamps.

39. The progressive increase in the revenue derived from stamps after continuing for many years ceased in 1908-09, the receipts in which were two and a half lakhs less than in the preceding year. The fall took place both in judicial and in non-judicial stamps. As regards the former the decrease in revenue followed naturally on the decrease in the volume of litigation. The diminution of the revenue from non-judicial stamps was doubtless due mainly to depression of trade.

Assessed Taxes.

40. The amount of income-tax collected shewed a small and normal increase. While there were increases in the amounts collected from all classes of recipients of salaries, from interest on securities, and from companies, the amount collected on private incomes was about three per cent. less than in the previous year despite an increase in the number of assessees.

Imperial Expenditure.

41. The amount of Imperial expenditure was slightly less than in the previous year. The approaching completion of the scheme for providing quarters for a battalion of British Infantry at Maymyo rendered possible a reduction in the amount spent on Military works, but the acquisition of sites for a new Telegraph Office in Rangoon and a new Post Office in Mandalay necessitated considerable expenditure.

Provincial Revenues.

42. In 1908-09 the amount credited to Provincial funds exceeded by eleven lakhs the receipts of the previous year. Provincial expenditure increased slightly and was more than twenty lakhs in excess of the receipts. The expenditure

in 1907-08 exceeded the revenue by over thirty-one lakhs and the result is that the balance at the credit of the Province, which at the beginning of the Settlement period was nearly sixty-two lakhs of rupees, was reduced to ten lakhs on the 31st March 1909. In order to meet the situation thus created expenditure was rigorously cut down to the lowest possible limit.

Local Funds.

43. District Cess Funds in Lower Burma, District Funds in Upper Burma and the Lower Burma Steam Boiler Inspection Fund, which had previously been classified as Incorporated Local Funds, were, with effect from the 1st April 1908, removed from that category and classed as Excluded Local Funds. The revenue of the District Cess Funds was diminished by the cessation of the grant made in the previous year from Provincial revenues for expenditure on public works. The receipts of District Funds in Upper Burma were affected by the prevalence of plague in several districts. Of the other Local Funds the most important are the Cantonment, Town, and Minor Port Funds. All of them were reported to be solvent and their revenues were utilised for the purposes for which they were intended.

Municipal Revenues.

44. The income of the Rangoon Municipality remained nearly stationary, while there was a considerable increase in expenditure with the result that there was a substantial deficit on the year's working. The increased expenditure was largely attributable to the re-organisation of various departments of the Municipality which was carried out with beneficial results. It is impossible to specify any item of expenditure which is capable of reduction and the total cannot be regarded as excessive for the upkeep of a town of the area and population of Rangoon.

The aggregate income and expenditure of the other Municipalities were both larger than in the previous year. The Municipalities are all solvent, but they are prevented by lack of means from undertaking many much-needed improvements. The distribution of the annual Imperial grant of three lakhs for sanitary purposes has afforded some relief in this respect.

Births and Deaths.

45. No change in the system of registration of births and deaths was introduced during the year. Despite greater attention devoted to supervision than in former years it cannot yet be said that the figures are very trustworthy. Delay in reporting the outbreak of infectious disease still took place in rural areas with the result that sanitary precautions could not be adopted until too late to prevent serious mortality. The provincial birth-rate recorded was 2·02 per mille in excess of that for 1907. The rate in towns was, as in former years, considerably lower than that in rural areas on account of the great excess of males over females in the three large seaport towns of Rangoon, Moulmein and Akyab. If these three towns are excluded from the calculation the rates in towns and rural areas were fairly uniform throughout the Province. The death-rate of the year was higher than in 1907, the excess being 1·62 per mille. It was particularly high in towns. Three towns returned rates of over 70 per mille per annum, six of over 60 and four of between 55 and 60. The death-rate of infants under twelve months, already high in 1907, increased during 1908. The increase took place in the towns in both Upper and Lower Burma and in rural areas in Lower Burma. Improper feeding is probably largely responsible for the very high infantile mortality of the Province.

The Society for the Prevention of Infantile Mortality continued its efforts to disseminate among the people a knowledge of the first principles of the proper care of infants. The high general death-rate of the year is ascribed to plague and cholera in Lower Burma and to cholera mainly in Upper Burma. Cholera in an epidemic form prevailed for parts of the year in five districts in Lower Burma and three in Upper Burma. Strenuous efforts were made to combat and suppress the disease in all districts by the executive and medical staff, but the *vis inertiæ* of the population prevented their having any large measure of success. The mortality from plague was considerably less than in the previous year, but the area in which it was present remained the same. Inoculation with Haffkine's prophylactic was carried out wherever possible. Other precautionary measures such as the destruction of rats, earth-oiling, the rendering of houses wholly or partially rat-proof and evacuation were carried out with varying degrees of success.

Medical Relief.

46. The number of Hospitals and Dispensaries increased by six during 1908 and the number of patients treated was also considerably greater. A satisfactory feature of the year was the increased attendance of Burmans, especially of Burmese women. The appointment of Lady Doctors, whose work at Mandalay, Moulmein, Rangoon and Bassein was much appreciated, largely contributed to this result. An Eye Department was organised in connection with the Hospitals in Rangoon and Mandalay, and the number of surgical operations of all kinds performed was greater than in 1907. The diminution of expenditure was due to the fact that less money was spent on buildings. The expenses of maintenance increased. A scheme for the training of midwives was in operation. Electro-therapeutic plant, intended to be worked by gas engines, for four operation rooms arrived during 1908 and one set was erected in Rangoon. The scheme for the establishment of a Pasteur Institute at Maymyo was in abeyance during the year. The shortage in the number of Hospital Assistants continued to hamper the efficiency of the Medical Department. In the Government Medical School in Rangoon there were under training thirteen students, all in one class. The future success of the School is likelyt o depend mainly on the steps which may be taken to improve the pay and prospects of Hospital Assistants.

Sanitation.

47. The necessity for continued heavy expenditure on plague operations forced Municipal Committees and other public bodies to make large reductions in the amounts spent by them on sanitation. Several schemes for the supply of water were prepared and were under discussion during the year. No final decision with reference to the supply for Mandalay town was reached. A breakdown in the Prome water-works was responsible for a severe outbreak of cholera in that town as the people were forced to fall back on the supply from the river. A scheme for the supply of water to towns in the Irrawaddy Division and in the Tharrawaddy District by means of rain-water tanks was under consideration. Experiments with an infiltration gallery as a means of water-supply resulted in failure at Shwebo, but were successful at Minbu and promising at Mônywa.

Not much progress was made in carrying out schemes of conservancy. Cheap incinerators for the destruction of garbage were erected in several towns, but they have not been in use long enough to enable any definite opinion to be

pronounced on their merits. The establishment of a service of Sanitary Inspectors is essential to the efficient direction of sanitary measures and the enforcement of the provisions of the Municipal Act. The Sanitary Board, for reasons inherent in its constitution, failed to provide as much assistance as was expected, and it is proposed to re-constitute it on lines which will ensure its being more in touch with the local authorities concerned at all stages of the progress of any large sanitary project.

48. An Act enabling the practice of inoculation to be prohibited in rural areas and an Act for the improvement of Vaccination in Rangoon Town and Port were passed but were not put into effect before the close of the year. The latter provides for the compulsory vaccination of all persons coming to Burma to work as labourers who are not protected against smallpox and gives additional powers to the Municipal Committee for vaccinating the occupants of lodging houses and factories. The number of vaccinations performed was less than in the previous year, but the percentage of success obtained was higher. The vaccine lymph in use in the Province was supplied from the Meiktila Depôt and gave excellent results. **Vaccination.**

49. The principal modifications of the machinery of education effected during the year were the increase of the professorial staff of the Government College, the re-distribution of the higher Inspectorate, the introduction of a new method of training in Normal Schools, and the initiation of a system of District Vernacular schools. The policy of the assumption of control of Municipal schools by the Education Department was continued. The transfer of the headquarters of the Inspectors of Schools of the Central, Western and Eastern Circles from Rangoon to Meiktila, Bassein and Moulmein respectively proved a success. The Government College and the Baptist College, both at Rangoon, continued to be the only institutions which provided a University training in the Province. Both had a year of moderate prosperity and a fair measure of success in the Calcutta University examinations. The Baptist College was recognised by the University after the close of the year as teaching up to the B. A. standard and anticipates a career of increased usefulness from the opening of new buildings now approaching completion. A separate Board of Governors for the Government College was constituted during the year in compliance with the regulations of the University. The numbers of pupils in the Middle and High Departments of English Secondary schools shewed a falling off in comparison with those of the previous year. There was a fair increase in the number of pupils in the Primary Department of such schools. There was an encouraging increase in the numbers undergoing instruction in primary schools. There was however a decrease in the number of pupils in monastery schools which are not under the control of the Education Department. Some years ago the numbers of pupils in State-controlled and in private schools were nearly equal, but the preponderance seems now to have definitely settled on the side of the former. A change in the regulations with regard to Normal Schools came into force with effect from the 1st January 1908. The number of pupils in these schools was much smaller than in 1907-08, but this decrease in numbers may prove to be only temporary. The Government School of Engineering at Insein continued to fill a useful place in the educational system of the Province. The number of girls who receive the rudiments of education in primary schools shews a **Education.**

steady increase from year to year. Sanction to the appointment of an Inspectress and Assistant Inspectress of Schools was granted, but owing to financial exigencies the appointments have not yet been filled.

Archæology. 50. Further progress was made in the completion of the arrangements for the working of the Ancient Monuments Preservation Act. The number of buildings of historic interest, the conservation of which is undertaken by the Public Works Department, was increased by nine. Financial considerations necessitated a curtailment of the sum allotted to archæology during the year, and the preservation of existing buildings absorbed the greater part of the money available. Excavations on the site of old Prome yielded few results of interest. Progress in the preparation of the classified list of the more important archæological remains in the Province was reported. Sanction was accorded during the year to a proposal to offer a scholarship annually for the purpose of training students in Burma in archæological work.

BURMA SECRETARIAT, *the 17th December 1909.*

PART II.

NOTE.—The departmental reports and other references on which this Report on the Administration of Burma is based are noted at the beginning of each Chapter. The departmental reports do not all cover the same period. The Reports on the Administration of Civil and Criminal Justice, the Police, Prisons, the Registration Department, the Salt Revenue, the Reports on the Insein Reformatory School, Measures adopted for the extermination of Wild Animals and Poisonous Snakes, Lunatic Asylums, the Report of the Chemical Examiner and Bacteriologist, the Report on the working of the Government Medical School, Rangoon, the Resolution on the Reports on Village Administration in Burma, and the Resolution on the Reports on the working of the Indian Factories Act in Lower Burma, deal with events which took place within the calendar year 1908; the Shan States, Chin Hills and the North-Eastern Frontier Reports, the Land Revenue, Land Records, and Forest Administration Reports, the Season and Crop Report, the Report on Co-operative Credit Societies, and the Report of the Department of Agriculture are concerned with the agricultural year from the 1st July 1908 to the close of June 1909. All other reports cover the twelve months of the official or financial year that ended on the 31st March 1909.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

REFERENCES—

Report on the Administration of the Shan States for the year ended the 30th June 1909.
Report on the Administration of the Chin Hills for the year ended the 30th June 1909.
Report on the Administration of the North-Eastern Frontier of Burma for the year ended the 30th June 1909.
Season and Crop Report of Burma for the year ending the 30th June 1909.

Physical Features of the Country, Area, Climate and Chief Staples.

POLITICAL.

Historical Summary.

Civil Divisions of British Territory.

Details of the last Census; Tribes and Languages.

For information on the foregoing subjects, reference should be made to paragraphs 1 to 19 and 56 to 75 of the Report on the Administration of Burma for the year 1901-02.

Form of Administration.

For information on this subject reference should be made to paragraphs 1 to 20 of the Report on the Administration of Burma for the year 1907-08.

Character of Land Tenures; System of Survey and Settlements

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

For information under "Character of Land Tenures," reference should be made to paragraphs 39 to 47 of the Report on the Administration of Burma for the year 1901-02.

The information under "System of Survey and Settlements" in the Report on the Administration of Burma for the year 1901-02 is to some extent out-of-date. The section has therefore been revised and is repeated with necessary modifications in the following eight paragraphs.

System of Survey and Settlements (Lower Burma).

Cadastral Survey.

1. The system of survey adopted in the Province is that of a connected theodolite exterior survey and a field-to-field interior survey. The country to be surveyed is first divided into large circuits or polygons. The geographical position of each polygon is ascertained with perfect precision and the included area carefully computed. Each of these large circuits or polygons is again subdivided into minor circuits or lesser polygons, the geographical position and area of each of which are determined with the same accuracy. Then within these minor polygons come the *kwins*, which in Burma correspond in many ways to the mauzas of Northern India. These *kwins* are the smallest polygons, rarely exceeding 1 to $1\frac{1}{2}$ square miles in area. They are not private estates or properties as the Indian mauzas are, but simply village blocks of paddy cultivation and waste of convenient size enclosed, as frequently as may be possible, within natural boundaries, and they are dealt with just in the same way as the larger polygons. Proceeding thus from the greater to the less, the margin of possible error is being constantly narrowed. The mathematically-ascertained area of the large circuits must be found to be equal to the total of the areas of the included smaller circuits; and until perfect agreement is obtained by repeated check processes, neither the larger nor the smaller areas are accepted; and so on down to the very unit of survey, which is the field. The field in Burma may at present be said to be a square or rectangular area of paddy or other cultivated land included within well-marked boundaries. Its area varies from 1 acre in the great alluvial plains of the Lower Delta to $\frac{1}{4}$ acre in the closely cultivated tracts of the Prome and Thayetmyo Districts towards the apex of the Delta. The aggregate of the field areas within each *kwin* must agree with the area of the *kwin* polygon, and until this agreement is attained the areas of the fields are not accepted. It will thus be seen that the method of cadastral survey is calculated to guarantee scientific accuracy in every detail.

Supplementary Survey.

2. The Land Records Department maintain the annual survey and assessment in the cadastrally surveyed districts, including those in which no regular settlement has yet been introduced. The changes and extensions in cultivation, ownership, topography, etc., are annually depicted on fresh copies of the *kwin* maps, and the assessment register records the area of each holding, with all changes and the assessment due at the rates fixed by settlement. The annual survey is needed *inter alia* for purposes of land revenue assessment. Considerable areas of culturable waste are newly occupied from year to year either without title or with a permit or grant from Government, and these and other changes require to be re-surveyed, as each individual holding is separately assessed annually on the area occupied and cultivated. Statistics are annually collected as to prices, sales, mortgages, crops, etc., and together with the annual crop measurement statistics furnish the Revision Settlement Officer with data for the re-settlement of the acre rates, and are also an indication of the economic changes which are annually taking place. In addition the Land Records Department furnish evidence as to grazing grounds and fisheries and measure all *pottas*, and the inspecting staff also check tax-tickets as a prevention against fraud on the part of

the revenue collecting officials. Changes in cultivation and in fisheries and the abnormal demand for grants of land have been so pressing in recent years that it has been out of the power of the permanent staff in many *kwins* to annually effect more than an accurate assessment, and the changes of the survey have there been brought up to date, prior to revision of settlement, by special survey staffs under the direction of the inspecting and superintending officers. A re-survey of the fisheries has been completed in four districts in Lower Burma and is in progress in two others. The re-survey was done by a special staff in each district and was undertaken in connection with a scheme for the improvement of the management of fisheries by the subdivision of the larger fisheries and the adoption of measures of fish conservancy. In connection with the same scheme five officers called *Inkunwuns* have been appointed. Four are employed in the supervision of the fisheries and the fishery revenue in three districts and the fifth is an officer in reserve to replace any of the others who may go on leave and to superintend the subdivision and demarcation of fisheries in any district in the Province.

System of Settlement.

3. With the exception of the unsurveyed districts of Salween and Northern Arakan, mostly under *taungya* cultivation, and certain parts of other districts surveyed under the direction of the Provincial Land Records Department, the original settlement of the cultivated land of Lower Burma has now been practically completed. The system of settlement consists in acre rates, based on the ascertained productiveness of the chief varieties of soil and crops, the local price of the produce averaged over a term of years, and the cost of cultivation; the rates thus deduced are compared with the rents paid by tenants and modified by other circumstances, such as the standard of living, indebtedness, etc., of the agriculturist. The ordinary term of settlement in Lower Burma under the most recent orders (1908) has been fixed at 20 years, a shorter period being allowed in exceptional cases only. The rates remain fixed per acre for the term of the settlement, but assessments annually vary with the increase or decrease in the size of the holding. At the original settlement the area of each holding, field by field, as it exists at the time of settlement, the name of the owner or occupant, the number of years he has been in possession, and the names of the tenants and mortgagees, with the rents paid or the amount of the incumbrance, have been recorded in the settlement registers prepared in duplicate, and this evidence is supported by the 16-inch trace shewing each field and its correct position together with the external limits of each holding. Other topographical features, the area covered by culturable and unculturable waste, village sites, streams, roads, etc., are all entered and the total area of the various plots checked and compared with the total area in the *kwin* as described in paragraph 1. The revision of the original settlement, which was begun in 1897, has now been completed in ten districts. The revision settlement is confined mainly to a revision of the assessment; the main assessment tracts of the original settlement are usually unaltered, but the classification of soil within them and the rates per acre may require revision. The rates are fixed after a consideration of the same factors as at the original settlement supported by crop measurements and enquiries in every *kwin* or village. When the re-settlement rate exceeds the old rate on any class of land by more than 50 per cent. but not more than 100 per cent. an intermediate rate not more than 50 per cent. above the old rate is adopted for the first five years. When the re-settlement rate exceeds the old rate by more than 100 per cent. but not more than 150 per cent. the old rate is increased by not more than 50 per cent. at once and half of the remainder of the enhancement is added to the rate at the end of five years and half at the end of ten years. When the re-settlement rate exceeds the old rate by more than 150 per cent. the progressive enhancement to be taken is to be settled by special orders. The ordinary term of a revision settlement is 20 years, although in exceptional cases a shorter term may be fixed.

Assessment of fallow land.

4. Until a few years ago it had been the custom in Burma, that the cultivator should only pay the full assessment rate on the area actually cropped. He could

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

leave as much of his holding as he liked uncultivated, and on such uncultivated part a merely nominal rate of assessment—2 annas per acre, a sort of quit-rent—was imposed, the cultivator, by payment of this quit-rent, retaining all his rights in the land. The land so left uncultivated is called fallow. As a matter of fact the term fallow is a misnomer. The land is never left in what would in England be known as open fallow. A so-called "fallow" field in Burma is a field which after the paddy upon it has been reaped is left untouched till the cultivator is inclined to plough it up again. It is never even ploughed up until its turn to yield a crop comes round. The usual reason for letting any land lie idle is that the cultivator is either unable or unwilling to cultivate it The custom of levying a 2-anna rate on so-called fallows is still maintained, but in consequence of the growth of the value of land and of a landlord class the extent of its application has been somewhat curtailed and wealthy or non-resident landlords are not allowed the privilege of the reduced assessment. The rule which is now in force provides that the 2-anna rate shall be levied on the whole or any part of a holding which is left uncultivated either in order to allow the soil to recover from exhaustion or because the owner is prevented from causes beyond his control, such as death of cattle or illness or death in his family, from cultivating it. There are certain areas in which cultivation is not possible every year either on account of the poverty of the soil or its liability to inundation, and power has been given to the Financial Commissioner to declare by notification that within such areas it shall not be necessary to present a written application to any Revenue Officer in order to obtain the benefit of the fallow rate. Where such a notification has been issued the revenue surveyor assesses all land in the possession of cultivators at the 2-anna rate and land in the possession of non-cultivating landlords at full rates. The latter however are at liberty to present a written application for the benefit of the fallow rate to the Township Officer. An assessment varying at the discretion of the Deputy Commissioner from 2 annas per acre to the normal cultivation rate is levied on land which is left uncultivated for grazing purposes or which has been generally sublet during the five preceding years, or which has been granted revenue free for a term of years and has not been brought under cultivation within a reasonable period, or which has not been a source of profit during the year of assessment.

Remissions.

5. The abatement on account of fallow is quite distinct in theory from abatements on account of remission, although in practice the two kinds of abatements necessarily often coincide. Remissions are granted in cases where crops have been wholly or partially destroyed by floods or drought or other cause beyond the cultivator's control. If the entire or nearly the entire crop on a holding has been destroyed, the whole revenue is remitted. If partial loss of crop is suffered, the remission is proportioned to the extent of the loss. No remission is, however, granted unless the loss of crops exceeds one-third of the estimated ordinary full crops of the holding.

System of Survey and Settlements (Upper Burma).

Survey.

6. The system of survey in Upper Burma is practically the same as in the Lower Province.

Settlement.

7. The land revenue system of Upper Burma is still unsettled and is the subject of much discussion. However, some conclusions which seem final have been arrived at. For instance, in 1897 it was decided that only areas under matured crops should be liable to assessment and that rates should not be assessed on either failures or fallows; this important decision is still unshaken; it makes the revenue assessments in the central dry belt very variable or elastic, but it is still in the experimental stage. Again, Regulation No. V of 1901 eliminated the distinction between rent and revenue on State and non-State land respectively from the Upper Burma system and made all lands liable to the payment of land revenue. At the same time this Regulation directed that the rates

of land revenue payable are to be taken into consideration when fixing the average rate at which the *thathameda* tax is to be levied. This latter decision is, it may be observed, a most important departure from the old system of adjustment or exemption from *thathameda* which had been tried and found wanting. The work of settlement in Upper Burma is more difficult and more varied than in Lower Burma. In Lower Burma the Settlement Officer has practically only one agricultural season, one kind of field crop, and one kind of tenure to deal with. His field operations are restricted to the dry weather. He has no direct concern with the non-cultivating classes of the people. In Upper Burma there are at least three separate agricultural seasons, many varieties of field crops, and several descriptions of tenures. The field operations in some districts may be continued during the whole twelve months of the year. The operations are simultaneously carried on over the entire district. In proposing rates of land revenue the Settlement Officer is guided by the statistics collected in course of his enquiries as regards productiveness of the varieties of soil and crops, the amount of rainfall, facilities for receiving drainage or irrigation, the local prices of produce averaged over a term of years and the cost of cultivation. When proposing rates of land revenue which are fixed on classes of crops throughout any district or part of a district the Settlement Officer also submits a scheme for the adjustment of the *thathameda* tax on all the inhabitants of the settlement area. Once the rate of *thathameda* has been fixed on individual households within the village, the actual assessment is left to the *thamadis* or assessors. Also the Local Government, with the previous sanction of the Governor-General in Council, may direct that in any district or part of a district an abatement from the rates fixed on soil or crops shall be made before these rates are applied to the assessment of land other than State, and the amount of such abatement has usually been 25 per cent.

Nine districts in Upper Burma have been settled and settlements in two other districts are nearly completed. Revision settlements have been completed in two districts and a party is at work in another district. The Upper Burma portion of the Thayetmyo District has been transferred to Lower Burma and the Lower Burma system of assessment introduced. The period for which fixed rates per acre have been imposed has been in the cases of the more recent settlements fixed at 15 years.

Supplementary Survey.

8. In Upper Burma the work of the Land Records Department in its general features is the same as that in the Lower Province, but in its details is far more laborious and less technical. Owing to the system of assessment on the area under matured crop only, each field and cultivated portion of each field have to be shewn for each holding in a field register; areas on which the crop has failed, areas irrigated, and the names of all the various crops field by field have to be entered in this register. The assessments follow the various harvest seasons; and though the winter harvest is the most important in some districts, the autumn and the hot-weather harvests are heavy, and in upland tracts the surveyor must visit the same holding twice in the year to record the matured crop area. The calculation of assessments, which are shewn in a separate register, is further complicated by the different rates on soils, crops and State and non-State land. Less accuracy in survey, with the exception of highly rated tracts, is looked for than in Lower Burma, and the survey work is generally lighter. On the other hand the actual physical labour of visiting the fields, of writing the details in the registers and of calculating the assessments at a great variety of rates for each harvest is far heavier.

Supplementary survey has been extended to all the districts in Upper Burma (except one) that have been cadastrally surveyed, and, owing to unexpected delays over regular settlements, summary settlements at acre rates have been imposed in two districts with the aid of the Land Records staff, and the seasonal assessments are carried out by them. Remissions of revenue are allowed on the same principle as in Lower Burma, but in districts where crops are precarious a liberal interpretation is put on the term "a matured crop" and the need for regular remissions tends to disappear. Suspensions of revenue are unknown and unnecessary in Burma. It may be seen that the system of land revenue assessments

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

described above is eminently elastic; the acre rates are fixed for short periods only and the assessments vary with the areas, crops and seasons.

Changes in the Administration.

The Lieutenant-Governor.

9. The Hon'ble Sir Herbert Thirkell White, K.C.I.E., was Lieutenant-Governor of Burma throughout the year.

Administrative territorial units.

10. The internal divisions of the Insein Subdivision of the Hanthawaddy District were reconstituted during the year. Experience had shewn that changing conditions in recent years had rendered the efficient administration of the subdivision with the two existing townships of Insein and Taikkyi a matter of increasing difficulty, and the subdivision was re-divided into the three townships of Insein, Taikkyi and Tantabin with effect from the 15th February 1909. A small area containing 15 villages and 3,592 acres of cultivated land was transferred from the Thabaung to the Bassein Township of the Bassein District at the close of the year. The headquarters of the Thabyegan Township of the Hanthawaddy District were removed from Thabyegan to Kayan during the year and the Ôkpo Township of the Henzada District was re-named the Ingabu Township. There were no changes in the external boundaries of districts or subdivisions, no new district or subdivision was created, and no administrative area was abolished.

Additions to and changes in the Administrative Staff.

11. The final steps in the re-organisation of the Police in accordance with the recommendations of the Police Commission were taken during the year of report. An addition was made to the cadre of four Assistant Superintendents and six Deputy Superintendents of Police in order to provide officers to fill the charges reserved for Assistant and Deputy Superintendents. The increase in the volume of judicial work in Lower Burma necessitated the appointment of several Additional Magistrates and Township Judges in various districts. The re-organisation of the Burma Secretariat at an additional annual cost of Rs. 68,340 was sanctioned and partially carried into effect. The office of Consulting Engineer and Secretary to Government for Railways was abolished and his duties taken over by the Revenue Secretary. The Excise establishments in all districts were removed from the control of the Superintendent of Police and placed in direct subordination to the Deputy Commissioner with effect from the 1st January 1909. The re-organisation of the clerical establishment in the Forest Department which was sanctioned in 1907-08 was brought into force in 1908-09 and a similar re-organisation of the Subordinate Forest Service was effected as far as funds were available. In the Land Records Department the number of Superintendents was increased from 34 to 41 in order to provide a reserve for leave vacancies and to meet the increasing demands upon the Department. The rates of pay were also revised and the first steps taken to bring into operation a scheme for the training of officers as Superintendents.

Relations with Tributary States and Frontier Affairs.

(i) Shan and Karenni States.

General.

12. The administration of the Shan States was carried on with success throughout the year and few incidents of special importance occurred. A steady improvement in administration is perceptible year by year. The prosperity of the Northern States and the interest taken in the administration by the Chiefs of Tawngpeng and South Hsenwi are specially noticeable. The Superintendent of the Northern Shan States undertook a prolonged tour in the State of Manglün on the Chinese frontier and was visited by a number of Chiefs from the Wa States whom he assured of the friendly intentions of Government. The revision of tribute which was effected during the year, resulted in the reduction of the demand from many of the Southern States. Although no reduction was made in the

Northern States, the proportion of the State income taken in their case is much less than in that of most of the Southern States. Arrangements have now been made to utilise to the best advantage the large accumulations in the wealthier Northern States, and many necessary improvements in communications will be effected. In the Southern States the enlightened administration of the Chiefs of Yawnghwe and Lai Hka and the Administratrix of Kēng Khām and the interest taken by the Chief of Kēngtūng in improving the administration of his State are worthy of record. The State of Möng Mit whose administration is supervised by the Deputy Commissioner of the Ruby Mines District as Superintendent had a satisfactory year. The young *Sawbwa* is proving himself an efficient ruler. A raid, in which sixty Chin slaves who had sought the protection of the *Sawbwa* were recaptured, was made by Kachins from unadministered territory in the Shan State of Kanti in the Sagaing Division. The question of the action to be taken is now under consideration. The other Shan State in this Division, Thaungthut, enjoyed a year of peace and prosperity.

Principal events of the year.

13. The Lieutenant-Governor visited the headquarters of the Southern and Northern Shan States during the year. At Taunggyi, he held a Darbar, which was attended by almost all the Chiefs of the Southern Shan States, and he conferred personally with all the Chiefs who were present. At the Darbar the *Sawbwa* of Lai Hka was invested with the Order of the Indian Empire, and on other Chiefs and Notables decorations and rewards were bestowed. At Lashio the Chiefs of Hsipaw, Tawngpeng and South Hsenwi were present, the attendance of the Chiefs of North Hsenwi and Manglün being excused on the ground of age or infirmity. The deaths of the Chief of Samka in the Southern Shan States and of U Kyaing the Public Works Minister of Hsipaw, occurred during the year. The Chief of Samka was one of the ablest and most enlightened among the Chiefs of the Southern Shan States and U Kyaing had directed the Public Works administration of Hsipaw for many years with conspicuous ability. The deaths of both are a serious loss to Government and their States.

Internal affairs.

14. Crime throughout the Shan States remained light throughout the year. The only serious case was a dacoity by Chinamen on a caravan of Shans in the State of North Hsenwi in which two men were killed and property to the value of Rs. 5,000 taken. The strength of the Government Civil Police in the Northern Shan States was raised from 74 to 88 of all ranks and a new police station was opened at Namtu the headquarters of the Burma Mines Company. The work of the Government Police was satisfactory. Police forces are maintained by all the Northern Shan States except North Hsenwi and Manglün and in several of the Southern Shan States. These forces are in all cases reported as doing useful work. The number of civil suits in the Southern Shan States remained nearly the same as in previous years but in the Northern States there was a remarkable increase from 136 to 203 in the number of civil suits disposed of by Government officers due mainly to numerous applications to the Assistant Superintendent, Kutkai, under the Kachin Hills Regulation. The rainfall of the year was above the average but was not well distributed. Much damage was done by heavy rains in November after the paddy crop had been reaped which led to the sprouting of the grain and the spoiling of what would otherwise have been a bumper crop. The demand for potatoes grown in the Southern Shan States was not so good as in previous years, and the cultivation both of this crop and of wheat is still hampered by difficulties of communication with the natural market in the plains of Burma. The area devoted to orange growing in Hsipaw is extending and a good crop was secured. In Kēngtūng the rice crop in the valleys was only a third of the average and there was a serious rise in prices. Cattle disease in the form of rinderpest, epizootic aphtha and anthrax was prevalent in a more or less severe form throughout the whole of the Shan States and heavy losses of plough cattle were the result. The trade of the States is dealt with in paragraphs 141, 142 and 145. On the whole the season for traders was not a good one. The comparatively poor harvest left the population with less money to spend on superfluities and the perennial difficulty of communications between Burma and the Southern Shan

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

States again made its influence felt. The finances of nearly all the States are now in a satisfactory condition. The most noteworthy improvements are in the Northern Shan States nearly all of which a few years ago were approaching bankruptcy and are now, not only solvent, but in most cases the possessors of large accumulations free to be devoted to public works. The efforts which have been made to secure honesty in financial administration in the various States are at last bearing fruit and complaints of unauthorised exactions by Chiefs and State officials have almost ceased. In Möng Mit the opium law in force in Upper Burma, which was modified when the State ceased to be administered as a subdivision of the Ruby Mines District, was reintroduced during the year.

Public works.

15. The most urgent need of the Southern Shan States is the improvement of communications both internally and with the plains. The main artery of communication, the Thazi-Taunggyi road is being improved every year and motor-traffic was maintained on it during 1908-09 though it can hardly yet be said to be fit for such traffic throughout the year. The sanction of the Secretary of State to the construction of the Southern Shan States Railway has now been received and it is hoped that work on it will be begun in the next year. As in the past the Chiefs displayed much energy and devoted a large share of the revenues of their States to public works of various descriptions, but chiefly the construction of roads and bridges. In the Southern States they are hampered by narrow means and the small area of many of the States but even so a large amount of useful work was accomplished. The total amount from State funds spent on public works in the Southern States was Rs. 1,23,440. In the Northern States a new Public Works Department Division with headquarters at Lashio was constituted with effect from the 1st February 1909, in order that the State funds devoted to public works might be utilised to the best advantage. Unfortunately it was found impossible to provide a sufficient staff for the Division and at the end of the year the unexpended balances were very large. The principal work of the year was the completion of the first two sections of the road from Kyaukme on the Mandalay-Lashio railway to Namhsan, the capital of Tawngpeng State, a village perched on a hill top and at present only approachable by narrow and winding mule tracks. The total sum spent from State funds in the Northern States was Rs. 3,92,419. In addition a sum of two lakhs has been invested in Government paper in the name of the Tawngpeng State which will be utilised in the construction of the Namhsan road. The Chief of North Hsenwi expended Rs. 12,800 on the purchase of materials for a new palace of some pretensions which he intends to build.

Mines and minerals.

16. In the Southern Shan States the exports from the Mawsön and Sizet Mines were 3,600 viss of refined lead, 5,400 viss of oxydised lead and 600 viss of dressed ore. One thousand and thirty-eight ticals of silver were disposed of locally. A number of prospecting licenses were granted or renewed but little work was done by any of the prospectors. In truth there is little temptation for them to embark in any extensive enterprise until the railway gives them means of transporting ores. The explorations of the Southern Shan States Syndicate in the Shan States portion of the area of their license had no definite results. In Karenni the Syndicate worked steadily throughout the year. Nine tin-reefs, several of very considerable thickness, were discovered and traced. Labour was procured from China but proved unsatisfactory. Red Karens, Shans, and White Karens were employed whenever they could be secured but no permanent labour staff has yet been found. Mr. Page of the Geological Survey of India and the Superintendent and Political Officer visited the mines during the year. No ore was exported except assay samples. In the Northern Shan States five new prospecting licenses were granted. The Burma Mines Company completed their bridge over the Namtu and carried their railway nearly eighty miles further up the Sterne valley where the work is slow and difficult. Owing to the occurrence of serious accidents considerable attention was devoted to the improvement of the track and 11 new steel bridges were completed. The first consignment of ore, carried to railhead by mules, was shipped to Mandalay in January 1909. The old Chinese tunnels

were further developed and good low-grade ore carrying lead, zinc, and silver, found, and crops of complex ore have been exposed at the northern end of the line.

Forest Administration.

17. The number of logs extracted was greater than in the previous year. One reserve in the Hsipaw State was notified and demarcated. In Karenni, the forests in which are not under the control of the Local Government or the Forest Department, a scheme for the protection of the remnants of the teak forests, which have been nearly ruined by indiscriminate felling in the past, was formulated and approved by the Chiefs of the teak-bearing States, Kantarawadi, Bawlakè and Kyèbogyi. The whole question of Forest Administration was carefully considered and discussed with the local officers during the Lieutenant-Governor's visit to Taunggyi. It was decided to proceed gradually with the reservations that have been proposed, and to increase the Forest staff as officers and funds become available. The need of reservation is admitted by all who are qualified to express an opinion on the subject.

Education.

18. In matters educational the Southern Shan States are distinctly backward. The majority of them are poor and there is no indigenous system resembling that of the monastery teaching of Burma which could be used as a foundation on which to build. The hold of Buddhism and the strictness of its practice become steadily weaker as one goes further East from Burma until at the Mèkong it almost fades away into the vague agnosticism of China. Most of the schools are the outcome of the energy of the Roman Catholic and American Baptist Missionaries, but several of the Chiefs maintain schools in their capitals and all of them are reported to be doing good work. In this as in other respects the Northern State of Hsipaw is far in advance of the others. It has 14 registered schools which receive grants from the State. There are two schools in Tawngpeng and the Chief wishes to open five more and a school was opened during the year in Möng Yai, the capital of South Hsenwi. The school for the sons of Chiefs at Taunggyi continued to do excellent work throughout the year and the Lashio school for the sons of local officials has proved a success.

Medical and Vaccination Departments.

19. The health of the people throughout the Shan States was fair. There was an outbreak of small-pox in nearly all the States but it was of a mild type and deaths were few. Plague appeared on the railway line in Hsipaw State and caused a number of deaths. The work of the vaccinators was interfered with by fear of plague. In one place the operator was threatened with violence. In some States mothers hid their children in the jungle when the vaccinator came. In several places Government officials of other departments were mistaken for vaccinators and whole villages disappeared until they had passed on. Nevertheless the number of operations shewed an increase over those of the previous year. The prejudice against vaccination is being slowly overcome. Only one or two of the oldest and most obstinate of the Chiefs are openly opposed to it and the people are slowly changing their attitude.

(*ii*) *The Chin Hills.*

Frontier Tribes.

20. There was no trouble of any kind with the tribes living beyond the borders of the Chin Hills proper during the year. A meeting of officers from Manipur and the Chin Hills took place in February 1909 and most of the cases pending between the Chins of the two districts were settled. In Northern Arakan the only incident which disturbed the peace was a raid by some thirty villagers of the transfrontier village of Kunlaung on the village of Londu in administered territory which took place on the 7th February 1909. The raiders wounded five villagers and carried off property to the value of Rs. 120 and the wife and daughter of the headman of Londu. The headman's son who attempted to intercept their retreat was shot dead with an arrow. The Deputy Commissioner with a column of Military Police proceeded to the scene of disturbance but the Chief of Londu with a deputation of his villagers met him on the way, restored the captives and

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

the loot, and paid a fine imposed on the village as a punishment. The villagers of Bahe paid the second instalment, Rs. 1,000 of the fine of Rs. 3,000 imposed on them for the massacre of the Sahong Chief and 26 of his followers in December 1906. The Bahe Chief remained in Akyab jail. In the Pakôkku Hill Tracts a Chin cooly from the village of Borg in unadministered territory committed a murder in January 1909 and fled to his village. He was arrested and surrendered by the Bong Chief, but immediately after his trial, it was announced that the brother of the Chief had been murdered by his relatives. There were rumours also that preparations were afoot for the murder of the Chief himself. The Superintendent with an escort of 20 Military Police and 25 Chin Police proceeded to the village and arrested the murderer and nine of his followers. They have since been released on taking an oath to abstain from any unfriendly act towards the Bong Chief or the British Government. The Kaungsè Chief, Komyang, has apparently made himself master of the Somra Hill Tract to the west of the Upper Chindwin District and applied for recognition as *Sawbwa*. This was refused but the Chief carefully abstained from any violation of the frontier and it has been decided that the policy of non-interference should not be departed from as Government is not directly concerned. The unadministered tract of territory situated between Northern Arakan and the Lushai Hills gave no trouble and it has been decided not to proceed further with the proposal to bring it under regular administration.

Chin Hills proper.

21. The administration of the Chin Hills was peacefully carried on throughout the year. No difficulty was experienced in collecting the tribute and there were no outstandings. Crime was very light and with one exception the conduct of the tribes was beyond reproach. A case of infanticide occurred at Toklaing in which the villagers by combining to suppress evidence made a conviction of the offenders impossible. There appears to be no doubt that the prosperity of the hills is advancing. The usual petty trade with the villagers in the plains was carried on during the year and seems to be increasing. Particular attention was given to the cultivation of wheat with successful results. Education in the Chin Hills is as yet of an elementary nature but has gained a secure footing. A small force of Chin Civil Police has been in existence since 1907 and it is now proposed to try the experiment of enlisting a few Siyins in the Military Police.

Pakôkku Hill Tracts.

22. With the exception of the murder of the Bong Chief's brother, the administration of the Pakôkku Hill Tracts was also peaceful and without events of political importance. There was little crime of a serious nature. The condition of the people continued prosperous, and the enhanced rate of tribute imposed in the Môn Valley caused no difficulty. A telegraph line to Kanpetlet the headquarters of these Hills was opened. Measures were taken by means of fines to prevent the destruction of teak by Chins in the course of hillside cultivation but further measures for the preservation of the sub-montane forests will probably be necessary. The Chin Police displayed the efficiency and good conduct which have marked them from the beginning.

Arakan Hill Tracts.

23. Except for the raid on Londu the peace of the Arakan Hill Tracts remained unbroken. Good work was done by the Deputy Commissioner in touring through his charge and cultivating friendly relations with the border tribes. The annual Darbar in the Chin Hills bordering on the Minbya Subdivision was held as usual by the Deputy Commissioner of the Akyab District. Nothing of note occurred during the year in that tract or in the Chin Hills of the Kyaukpyu District.

(*iii*) *The Kachin Hills.*

Chinese Border.

24. No disturbances took place between the Kachins in British and Chinese territory. The customary frontier meeting with Chinese officials was held as usual in January and was more than ordinarily successful. The meeting was for the first time marked by the presence of the Têngyüeh, *Taotai* which largely

contributed to the good results obtained. A settlement was arrived at in a number of outstanding frontier cases, including that of the raid on Wajao committed by an armed gang from Santa in 1907, and the relations between the British and Chinese representatives were excellent. The question of the application of the Track Law to frontier cases was discussed at the meeting and is now under consideration.

Unadministered territory.

25. In Myitkyina there were no raids committed by tribes from unadministered territory, but there was a raid made by a party of villagers from Thama, within administered limits on the village of Kanem across the border. The village of Thama was fined and compensation paid to the sufferers, but the headman of Thama and those who took an active part in the raid fled into unadministered territory and have not yet been captured. The settlement of the longstanding blood-feud between the Sadan Kachins and the people of Tingaw in the Myitkyina District has, it may be hoped, permanently removed what has been hitherto a constant danger to the peace of the frontier. Friendly overtures were also received from the Sana Kachins who have been bitterly hostile for years. The year was marked by a great improvement in our relations with the trans-border tribes generally.

Internal Administration.

26. The internal administration of the Kachin Hills was peacefully conducted, tribute was collected without difficulty, and serious crimes were comparatively infrequent. There was some increase in the volume of civil litigation except in the hill tracts of the Katha District. The officers engaged in the administration of the Hills made extensive tours in their respective charges and accomplished much useful work. The season at the Jade Mines was not very successful, owing to constant disputes among the mine-owners, but the minor Chief has now been permitted to take over the administration from his agent, and it may be hoped that affairs will run more smoothly in future. The value of the gold won by the Burma Gold Dredging Company from the Irrawaddy River above Myitkyina was £30,420 in 1908-09 as compared with £25,500 in the previous year. The Company maintain friendly relations with the hillmen to whom they pay large sums of money for fuel and their operations have been an advantage to the administration in affording a practical demonstration to the Kachins of the profits which they may derive from the pursuit of peaceful industry and the maintenance of good relations.

Forests.

27. The difficult question of the preservation of forests in the Kachin Hills, with special reference to the wasteful and destructive system of *taungya* cultivation practised by the hillmen, continued to receive careful attention during the year, and the Director of Agriculture was asked to take such steps as might be possible to advise and assist in respect of the improvement of agricultural methods in the Hills. The revenue from India-rubber has declined from Rs. 79,000 in 1900-01 to Rs. 7,000 in the year of report. The trees from which the rubber is extracted are in unadministered territory and have been practically destroyed by reckless tapping.

Condition of the People.

28. The season was very favourable for agriculture in both Upper and Lower Burma. In parts of the dry zone it is reported to have been the best since the establishment of British rule. The prices of all agricultural produce though less than the extreme rates which prevailed in 1907-08 were still high. It is hoped that the favourable season has enabled the cultivators in Upper Burma to recover their position after the disastrous experiences of the two preceding years. In Lower Burma, doubts have been expressed whether after all successive years of good crops and high prices have effected any permanent improvement in the position of the ordinary agriculturist. In the opinion of several authorities the increased income has merely been squandered on unproductive luxuries and the cultivator remains where he was. As there has been a good deal of uncertainty on the point an

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

officer was placed on special duty during the year in order to conduct an enquiry into the indebtedness and position of the cultivating classes in the Irrawaddy Division. In Hanthawaddy District in the vicinity of Rangoon the whole of the land available for cultivation has been occupied and a non-resident non-agricultural class of landholders has come into existence complaints of whose oppression of their tenants have begun to be heard. Cattle disease was responsible for smaller losses than in any previous year. There were epidemics of cholera in several districts and plague was present throughout the year in nearly all districts. The rapid expansion in the oversea trade of the Province which characterised the two preceding years was not maintained in 1908-09. Burma did not escape the effects of the contraction in the volume of the world's trade and for the first time for many years the figures shewed a decrease on a comparison with the previous year. The exploitation of the mineral wealth of the country proceeded with unabated zeal during the year but with the exception of the oil fields it cannot yet be said that the day of realisation has been reached in any of the numerous enterprises.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REFERENCES—

Land Revenue Administration Report of Burma for the year ended the 30th June 1909.
Land Records Administration Report of Burma for the year ending the 30th June 1909.
Agricultural Statistics of India, Volume I.

Realization of the Revenue.

Demand, recoveries, remissions and outstandings.

29. The demand of Ordinary Land Revenue assessed during the year was Rs. 2,62,31,361 or Rs. 12,48,690 more than the demand of the previous year. The season in all parts of the Province was very favourable for agriculture and a great stimulus to cultivation was thereby afforded. In all districts except Rangoon Town and Sandoway there was an increase in the area assessed and in all districts the amount collected was larger than in the previous year. That the limit of expansion of cultivation has nowhere yet been reached is proved by an increase of 2,000 acres in the assessed area in Hanthawaddy, the most thickly populated district in the Province. In the other districts of the Central Rice Tract and in the Delta Tract the rate of expansion of recent years was, generally speaking, maintained. In the Dry Zone Districts, Pakôkku, Minbu, Magwe, Sagaing, Lower Chindwin, Meiktila, Yamèthin and Myingyan, where revenue is only assessed on land on which a crop has matured, the influence of a favourable season such as was that of 1908-09 is felt immediately in a large expansion of the revenue demand, which in fact exceeded that of 1907-08 by over 7½ lakhs of rupees. No steady expansion in the revenue from these districts is possible. Cultivation is precarious and the revenue must fluctuate in accordance with the character of the season. In the three districts favoured by the presence of irrigation works on a large scale, Shwebo, Mandalay and Kyauksè, a favourable season resulted in an expansion of cultivation and a corresponding increase of revenue. The influx of population into the Northern Frontier Tract which has been noted in recent years continued and a commencement at least has been made with the work of bringing under cultivation the very extensive areas of waste lands comprised in it. In the Arakan and Tenasserim seaboards there were considerable increases of revenue in the principal districts of Akyab and Amherst, while the less important districts of Kyaukpyu, Sandoway, Tavoy and Mergui remained practically stationary. Of the current year's revenue demand the sum of Rs. 1,04,651 was remitted as compared with Rs. 1,88,882 in the previous year. The total sum remitted was the smallest reported since 1902 when the demand was 65 lakhs less than it was in 1908-09. In the Irrawaddy Division remissions were much greater than in the previous year. The reason given is that in the districts of that Division a large area of waste land is annually cultivated by temporary residents who reap their crop and disappear, leaving no property behind, before the revenue is demanded. In Upper Burma the only remissions of importance were made in the Kyauksè District where Rs. 4,550 were struck off on account of the destruction of crops by floods in November. Out of Rs. 96,921 of the previous year's assessments remaining for collection at the beginning of July 1908 Rs. 61,337 were collected and Rs. 35,584 remitted. The amount of revenue collected during the year was only Rs. 1,09,070 less than the demand. While the increase in the demand amounted to 12·49 lakhs, the amount collected increased by 14·11 lakhs. The amount outstanding at the close of the year was Rs. 4,419 as compared with Rs. 96,921 at the end of 1907-08.

CHAP. II.—ADMINISTRATION OF THE LAND.

Coercive processes.

30. The number of notices of demand issued decreased by 3,358 and numbered only 37,854 for the whole Province. Warrants of arrest were issued in 6,506 cases as compared with 9,094 in 1907-08, the number of warrants of attachment of property fell by 3,353 to 16,037, 1,777 persons were arrested as compared with 1,815 in the previous year and the number committed to jail rose from 25 to 28. Sales of moveable property decreased by 504 cases and sales of immoveable property increased by 10. Out of a total revenue of Rs. 9,97,423 for the realisation of which process was applied for the amount recovered was Rs. 8,15,797, a better result than in 1907 when out of Rs. 8,76,659 only Rs. 6,63,552 were recovered. By far the largest number of warrants of arrest was issued in the Hanthawaddy District where in the previous year the amount remaining unrecovered after the issue of process was unduly large. Improvements in the system of assessment here and in other places had a considerable effect in reducing the number of processes which it was necessary to issue. In the Pegu District processes were issued in a number of cases where the cultivators failed to apply for remission of revenue on areas destroyed by floods. Complaints of contumacy were received only from the Tharrawaddy and Ruby Mines Districts. In the latter Natives of India deliberately delayed payment of revenue in the hope that it would be struck off as irrecoverable and on the issue of two warrants of arrest the whole of the arrears were paid in immediately.

Surveys.

Demarcation preliminary to Survey.

31. Demarcation in advance of Cadastral Survey by local agency was undertaken in the Akyab, Sandoway and Amherst Districts, covering 216 square miles with an occupied area of 32,371 acres. A special demarcation officer dealt with the demarcation of Amherst. Elsewhere the work was executed by local Inspectors and Surveyors under the supervision of the Superintendents of Land Records. Adequate assistance was rendered by village headmen and cultivators. The demarcation in all cases, though scattered and comparatively difficult, was satisfactorily performed.

Surveys by Imperial Agency.

32. The Government of India has ordered that no further cadastral surveys in Burma shall be undertaken by the Survey of India. The work of No. 7 Party during the year was therefore confined to the recess work of the previous field-season's operations in the Thayetmyo, Pegu, Yamèthin and Pyapôn Districts.

Surveys by Provincial Agency:—(i) Revision Surveys.

33. Revision surveys are undertaken in areas already under Supplementary Survey when extensions of cultivation or changes in the natural features of the country have taken place on such a scale that the map annually brought up to date by the Supplementary Surveyor fails to give a correct record. In the year under report the maps of the previous year's surveys in the Hanthawaddy, Amherst, Thatôn, Meiktila, Minbu and Myingyan Districts were completed and sent to be printed. Revision surveys by special agency were continued in the districts of Akyab, Hanthawaddy, Amherst, Thatôn and Meiktila and were commenced in Mandalay and Yamèthin. In the Akyab District the first year's work of a programme for revision surveys extending over five years was satisfactorily completed. In Hanthawaddy the work allotted for the third year of the Revision Survey was with slight modifications brought to a conclusion, and in another year the work in this district will be finished. The Revision Surveys in the Amherst and Thatôn Districts were completed during the year and the special staff entertained for this duty was disbanded. The revision of survey in the Mandalay Canal Tract, which was rendered necessary by alterations in the irrigation system, was continued. In the Meiktila District the area left unsurveyed at the end of the previous year's operations was brought under survey. The area the re-survey of which was necessary in the Yamèthin District proved to be much more extensive than had been anticipated and part was not completed at the end of the season. In Magwe a special survey of the Twingôn and Bemè native Oil Reserve areas of

Yenangyaung was carried out under the supervision of the Superintendent of Land Records.

Surveys by Provincial Agency:—(ii) Extension Surveys.

34. Extension surveys are, as a rule, carried out for assessment purposes in lands outside the area of supplementary survey which have been brought under cultivation. The maps of the field surveys executed during the preceding year in the districts of Akyab, Kyaukpyu, Tharrawaddy, Minbu, Amherst and Thatôn were completed during the recess. Extension surveys by special parties were continued in the unsettled tracts of the Akyab, Tharrawaddy, Amherst and Thatôn Districts, and new surveys were undertaken in Sandoway. The surveys, save in Amherst and Thatôn, where a special officer was engaged, were conducted under the supervision of the Superintendents of Land Records of the districts in which they took place. In the Akyab District the four-year programme was completed with the exception of the detail work in an area of about four square miles which, owing to unavoidable delays, could not be overtaken and will be done by the local staff next year. The area for survey in Sandoway was not large and the work was completed. In Tharrawaddy the work left over from the previous year was finished. In Amherst and Thatôn the extension surveys were executed by the special party on revision survey duty in these districts. The reduction and final preparation of the Fishery maps of the previous year's surveys in the Pyapôn District were completed and the maps printed during the year of report. In the Hanthawaddy District the work of subdivision and demarcation of fisheries, which had been estimated to occupy three years, was brought to an end within the sanctioned period. Surveys of the fisheries were made by a special staff. In the Pegu District some revision of the existing Fishery maps took place. The survey of lands a grant of which has been applied for was carried out in fifteen districts in Lower Burma. The issue of such grants has been suspended in several districts. In Minbu District a staff was employed on the demarcation and survey of lands suitable for cultivation in the Môn Canal area. The position of projected distributaries was ascertained from the Irrigation Department and lands commanded by these distributaries were marked out in 30-acre blocks separated by approaches. Each block was then divided into lots of 7·5 acres. The area for survey was originally estimated at 7,000 acres, but it was found that some 30,000 acres were involved. During the season about 8,000 acres were demarcated and surveyed and 1,800 acres were allotted on lease by an officer who was placed on special duty for the purpose. The work has been temporarily suspended owing to lack of funds.

Settlements.

General progress of Settlement.

35. Of the 37 districts of the Province 31 are wholly or in part under settlement. The unsettled districts are Northern Arakan, Salween, Pakôkku, Bhamo, Myitkyina and the Ruby Mines. A settlement party is now at work in Pakôkku, and it is anticipated that the first settlement will be introduced in 1911. The remaining five districts are hilly and sparsely populated and it has been decided that settlement is not at present necessary. The area under settlement is approximately 48,000 square miles and includes most of the cultivated area. The first of the present system of settlements was made in 1880. In Kyaukpyu, Sandoway, Lower Chindwin and Myingyan settlement operations were of a summary nature and were carried out under the supervision of the Deputy Commissioners. In the remaining districts the work was done by fully organised and equipped parties under Settlement Officers. The ordinary term of settlement was originally fixed at 15 years, but for various reasons often varied from this limit and has now been fixed at 20 years. In five districts second settlements have been made and in Hanthawaddy work on a third settlement to be introduced in 1911 is in progress.

Operations of the year.

36. Five settlement parties were employed during the year and settlement operations were in progress in two districts in Lower Burma and four districts in Upper Burma. The expenditure incurred by these settlement parties was Rs. 4,69,975, and the average cost of the operations per acre seven annas. No

CHAP. II.—ADMINISTRATION OF THE LAND.

settlements were sanctioned during the year, but the rates for Amherst and Pyapôn which were provisionally notified in 1907-08 were confirmed. On a cultivated area of 509,943 acres the revenue demand was raised from Rs. 11,26,997 to Rs. 14,50,416, an increase of 28·70 per cent. This considerable enhancement was justified by the low pitch of the expiring rates, and the rise in rents and prices since the date of the previous settlement. In Pyapôn the new settlement took effect throughout the whole area with effect from the 1st July 1908, but in Amherst the existing settlement in a portion of the area does not expire till 1911, from which date the new rates will be imposed.

Settlements in progress.

37. During the first four months of the year Settlement Party No. 1 was engaged on the recess work connected with the second settlement of the first settlement circuit of the Thatôn District. Operations on this circuit, including the Kyaikto, Bilin and Thatôn Townships, were completed in one year. The report was submitted in October and reviewed at a Conference held in Moulmein in December 1908. Orders on the report had not issued at the close of the year. With the opening of the field season the party started work on the second circuit of Thatôn comprising the surveyed area of the Paung, Pa-an and Hlaingbwè Townships. Selections were measured throughout the three townships and soil classification was revised over about half the area. The operations are intended to be completed in two years. No. 2 Settlement Party continued operations on the first circuit of the Hanthawaddy District, for which three years have been allotted in the programme. The area comprises five townships and consists almost entirely of broad, flat rice plains intersected by tidal creeks. During the recess some summaries of holding areas were compiled and area statements were prepared. Progress was made with the analysis of Land Records Registers, which is intended to shew how estates are distributed between Burmans and non-Burmans, residents and non-residents, owners and tenants. Field operations of the second season commenced early in October 1908. Crop measurements were made throughout the whole area and revision of soil classification was completed in about one-third. Agricultural statistics were recorded and special enquiries regarding indebtedness were held. Settlement Party No. 3 continued the first settlement of the Pakôkku District, which commenced in October 1905 and to which 4½ years were allotted. The soil classification of the whole area was completed at the end of the year and the compilation of registers and statistics was in progress. Land tenures in the Pauk Subdivision were the subject of some discussion owing to the discovery of traces of communal tenure, but further enquiry shewed that such tenure no longer existed. The first regular settlement of the Lower Chindwin District was completed by No. 4 Party in the year of report. In the field season soil classification was completed and further crop measurements taken. In April 1909 the greater part of the establishment moved on to Shwebo, while the rest remained to complete the compilation of statistics. The work was finished in June 1909 when the report was submitted. A small section of No. 3 Party proceeded to Shwebo in October 1908 in order to take crop measurements in the Shwebo Canal area. They were joined in April 1909 by the main body of Settlement Party No. 4. At the close of the year a register of holdings had been prepared and soil classification completed over about a quarter of the area under settlement. The second settlement of the Meiktila District was continued by No. 5 Party. Soil classification was commenced during the year and at its close had been completed over about a third of the settlement tract. In this district the cultivation of dry crops on rice land is very common and a system of double classification was adopted for rice land.

Land Records.

Area under Supplementary Survey.

38. The area under Supplementary Survey during the year was 48,052 square miles, an increase of 510 square miles over the area in 1907-08, excluding 77 miles now brought under survey in the Pakôkku District. In Akyab 21 square miles and in Tharrawaddy 28 square miles were brought under Supplementary Survey for the first time as a result of special Extension Surveys. Kyaukpyu

shews an increase of 32 square miles apparently due to the same cause. An increase of 52 square miles in Hanthawaddy and a decrease of seven square miles in Myaungmya were said to be due to incorrect figures in previous years. Prome shewed a decrease of one square mile from the same cause and Bassein a similar decrease owing to an extension of the municipal limits. In Pyapôn 125 square miles recently surveyed by the Survey of India were brought under Supplementary Survey. The Special Revision Party prepared the way for the introduction of Supplementary Survey into 150 square miles of country in Thatôn and 170 square miles in the Amherst District. Seventy-seven square miles are now shewn as under Supplementary Survey in Pakôkku, where a Settlement Party is at work. In Magwe there was a decrease of 50 square miles owing to the formation of new Forest Reserves. A decrease of two square miles in the Lower Chindwin was due to corrected figures. In Meiktila four square miles containing no permanent cultivation were excluded from Supplementary Survey and in Myingyan a decrease of three square miles is explained by the transfer of an island to Pakôkku.

Cost of Supplementary Survey.

39. The cost of superintendence and inspection increased from Rs. 4,56,806 to Rs. 5,06,612, *i.e.*, from Rs. 9·61 to Rs. 10·54 per square mile. The cost of the survey staff is now Rs. 7,85,766 as compared with Rs. 7,71,414 in the previous year or Rs. 16·35 per square mile as compared with Rs. 16·23. The total cost of Supplementary Survey is 1·332 annas per acre, an increase of ·036 on 1907-08 but it is only 4·54 per cent. of the total assessment as compared with 4·68 in the previous year. The increased cost of supervision was due to the re-organisation scheme which was introduced in April 1908. The partial introduction of Supplementary Survey into Pakôkku District was responsible for a very high cost per square mile and per acre in that district, but this will decrease when regular Supplementary Survey is introduced into the whole district. In Shwebo the staff was increased by two Inspectors and 16 surveyors as well as 16 temporary surveyors. In the Upper Chindwin District local allowances were sanctioned with effect from September 1908.

Survey Schools.

40. The number of Government Survey schools was 19, the same as in the previous year. The number of pupils on the rolls on the 31st March 1909 was 381, the monthly average number being 383. There was a marked falling off in the attendance at Prome, Mandalay and Mônywa, for which the prevalence of plague was partly responsible. The best attended schools were at Minbu, Meiktila, Moulmein, Pakôkku, Sagaing and Henzada. The full number of scholarships allowed was allotted by Commissioners of Divisions and held during the year at a total cost of Rs. 15,100. A sum of Rs. 480 formerly spent on prizes for the schools is to be discontinued as the expenditure served no useful end. Of the pupils in the schools 62·5 per cent. were the sons of thugyis and agriculturists. The total net cost of the schools was Rs. 34,735, or an average of Rs. 91 per pupil for the year, the same as in the previous year. At the examination conducted by the Educational Syndicate in April 1909 a fair proportion of the candidates from Government Survey schools passed the test in Revenue and Surveying, but the results in Arithmetic were poor. This weakness in Arithmetic has been noticeable for several years, and proposals for more thorough tuition in the subject are under consideration.

Transfers of land.

41. The influence of a good harvest is perceptible throughout the statistics dealing with transfers of land in 1908-09. The area sold was $4\frac{3}{4}$ per cent. less than in the previous year. The principal decreases took place in the Pegu, Myaungmya and Thatôn Districts. In Pegu the figures for 1907-08 were abnormally large and those of 1908-09 indicated a return to normal conditions. The average price for which land changed hands by sale rose from Rs. 46 per acre in 1907-08 to Rs. 50 in the year of report. To arrive at the true average prices for the Province, however, it is necessary to exclude transactions in Hanthawaddy District where the transformation of the area round Rangoon from an agricultural into a residential and industrial locality has led to numerous sales at very high prices. If this is done the average selling price of land in 1908-09 works out at Rs. 44 per

CHAP. II.—ADMINISTRATION OF THE LAND.

acre as compared with Rs. 42 in 1907-08. Sales in Upper Burma were few except in Mandalay, Kyauksè and Yamèthin. The area mortgaged was 22 per cent. less than in the previous year, in which there was also a drop of 12 per cent. as compared with 1906-07. The figures do not include mortgages with possession, which are the most common form of mortgage in Upper Burma, and hence the transactions recorded were almost entirely in Lower Burma, where the reduction was common to all the larger districts. The provincial average of the mortgage value rose from Rs. 34·4 per acre in 1907-08 to Rs. 40 in the year of report. The area redeemed during the year was 11 per cent. less than that redeemed in the previous year but exceeded the area mortgaged, which was not the case in the two preceding years. The area under mortgage decreased by 1½ per cent. in the course of the year.

Waste Lands.

Grants and leases for cultivation.

42. The area of land leased or granted for cultivation during the year was 36,859 acres or 4,924 acres more than in the previous year. During the past five years the issue of grants has been suspended in several of the most important districts in Lower Burma. The figures therefore are no indication of the amount of land taken up for cultivation during the year, but rather point to the amount of land which either was not sufficiently attractive to be cultivated without a promise of exemption from revenue, or was leased in large blocks on special terms for cultivation of special staples in individual districts. In the Amherst District the cultivation of considerable areas was rendered possible for the first time by the introduction of new water-resisting varieties of paddy. In the Myitkyina District 50 acres were leased for the cultivation of rubber.

Revenue-free grants.

43. The area granted revenue-free for religious purposes increased from 219 acres in 1907-08 to 487 acres in the year of report. A good year left more money in the hands of the people to be spent on the erection of religious edifices. The area granted for public purposes was 48·77 acres as compared with 20·74 acres in the previous year. In many cases the object was the provision of burial grounds for various communities in or near towns. An aggregate area of 1,019 acres was granted to be held free of revenue as an appanage of the appointment of headmen of village-tracts (*thugyisa* land).

Government Estates and Wards' Estates.

44. There are no Government or Wards' Estates in Burma.

Revenue and Rent-paying Classes.

Land revenue paying classes.

45. The total area occupied by agriculturists and non-agriculturists was about 15¼ millions acres, an increase of 10 per cent. over the figures of the previous year. The increase is due to the inclusion in the statistics of 1908-09 of the figures for the Shwebo District, about a million acres, which had been omitted in the previous year, but even so the figures are still incomplete. The percentage of the total area occupied by agriculturists was 84·4; in 1907-08 it was 84·2. Excluding the figures for the Hanthawaddy and Pegu Districts where the proportion is much below the average, in the remainder of the Province agriculturists occupied 86·9 per cent. of the total area as compared with 86·7 per cent. in 1907-08. The area in possession of agriculturists increased by 10·4 per cent. during the year, that in the possession of resident non-agriculturists by 7·7 per cent. and that in the possession of non-resident non-agriculturists by 10 per cent.

Tenants.

46. The area of land let at full rents to tenants again increased by nearly 200,000 acres to 2,853,431 acres. The number of tenants exceeded the number of the previous year by 806. Sixteen per cent. of the tenants had rented for five

years and more the land which they then worked as compared with 1·29 per cent. in 1907-08. The bad seasons of 1906-07 and 1907-08 in Upper Burma caused many tenants to migrate and broke the continuity of tenancies there. The money value of rents was in 1907-08 Rs. 13·1 per acre, but in 1908-09 it fell to Rs. 10·8. Rents are generally paid in kind and the decrease was due to the lower range of prices of paddy which prevailed. Relations between landlords and tenants were generally good and from the Pegu District alone were any complaints of oppression heard. The growth of a permanent class of Indian tenants who with a lower standard of living are willing to pay a higher rent than the Burman is again noticed in several districts.

CHAPTER III.

PROTECTION.

REFERENCES—

Report on the Police Administration of Burma for the year 1908.

Resolution on the Reports on Village Administration in Burma for the year 1908.

Report on the measures adopted for the extermination of Wild Animals and Poisonous Snakes in Burma during the year 1908.

Report on the Police Administration of Rangoon Town for the year 1908.

Report on the Administration of Criminal Justice in Burma for the year 1908.

Report on the Prison Administration of Burma for the year 1908.

Report on the Administration of Civil Justice in Burma for the year 1908.

Note on the working of the Registration Department in Burma during the year 1908.

Report on the working of the Indian Companies Act in Burma for the year 1908-09.

Report on the working of the Rangoon Municipality for the year 1908-09.

Resolution on the Reports on the working of Municipalities in Burma during the year 1908-09.

Report of the Public Works Department, Burma (Buildings and Roads Branch), for the year 1908-09.

Report of the Commissioners for the Port of Rangoon for the year 1908-09

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the year 1908-09, Part III, Shipping.

Report on the Maritime Trade and Customs Administration of Burma for the year 1908-09.

Report on Government Steamers, Vessels and Launches in Burma for the year 1908-09.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.

Annual Statement of the Coasting Trade and Navigation of British India.

Statistics of British India, Parts II, V, VI and VIII.

Legislative Authority.

The constitution of the Legislative Authority of the Province is described in paragraphs 106 to 109 of the Report on the Administration of Burma for the year 1901-02.

Course of Legislation.

Work of Legislative Council.

47. During the Legislative year, *viz.*, from the 1st April 1908 to the 31st March 1909, six Bills were introduced into the Council of His Honour the Lieutenant-Governor. Of these five were passed by the Local Legislature, but only four became Law during the year as Burma Acts IV, V and VI of 1908 and I of 1909. These were the Rangoon Port (Amendment) Act, 1908, the British Burma Pilots Act Amendment Act, 1908, the Burma Prohibition of Inoculation and Licensing of Vaccinators Act, 1908, and the Burma Vaccination Law Amendment Act, 1909, respectively.

The first of these Acts, *viz.*, the Rangoon Port (Amendment) Act, 1908, was passed in order to remove the restrictions imposed by section 36, sub-section (*1*) of the Rangoon Port Act, 1905, whereby debentures could only be transferred by indorsement, thus rendering 'bearer' debentures impossible, and also to allow the coupons attached to debentures issued under the Act to be impressed with the lithographed signature of the Chairman. The main object of the British Burma Pilots Act Amendment Act was to amend the provisions of the Burma Pilots Act of 1883 with regard to the formation of a Special Court to investigate charges of incompetency and misconduct against pilots. The Prohibition of

Inoculation and Licensing of Vaccinators Act prohibits the practice of inoculation in selected areas which have been provided with an efficient system of vaccination and provides for the licensing of vaccinators throughout the Province. The Vaccination Law Amendment Act was passed with the object of checking the outbreaks of small-pox which for years past have been constantly recurring in an epidemic form in Burma. The outbreak and dissemination of this dangerous disease were found to be closely associated with the annual influx of Indian coolies, who, during certain months of every year, come in great numbers to Rangoon and other sea-port towns of Burma. The Burma Vaccination Law Amendment Act of 1900 was passed with the object of checking these epidemics. It conferred powers of compulsory vaccination, but those powers were found to be quite ineffectual in dealing with coolies, many of whom have no fixed place of abode and hence could not be found when they failed to obey an order under section 3 of the Act requiring them to submit to vaccination within seven days. The Vaccination Law Amendment Act of 1909, which repeals the Amendment Act of 1900, renders it possible to carry out compulsory vaccination amongst this class of people. CHAP. III.—PROTECTION.

An amendment of the Municipal Act, 1898, dealing with barbed wire abutting on public thoroughfares in Rangoon, and in municipal prosecutions dispensing with the necessity of examining the complainant on oath on the filing of the complaint, was passed as the Burma Municipal (Amendment) Act, 1909, but it did not receive the assent of the Governor-General till the 12th April 1909 as Burma Act II of 1909. A Bill regulating the Law of Landlord and Tenant was introduced into the Legislative Council on the 19th December 1908 and referred to a Committee who reported thereon making considerable amendments in the Bill. The report with the amendments proposed are under the consideration of Government.

Indian Legislation affecting Burma.

48. The undermentioned General Acts affecting Burma were passed by the Governor-General in Council. General Acts affecting Burma.

[General Acts of 1908.]

VI.—The Explosive Substances Act, 1908.
VII.—The Newspapers (Incitements to Offences) Act, 1908.
VIII.—The Local Authorities Loan (Amendment) Act, 1908.
IX.—The Indian Limitation Act, 1908.
X.—The Indian Salt-duties Act, 1908.
XII.—The Indian Emigration (Amendment) Act, 1908.
XIV.—The Indian Criminal Law Amendment Act, 1908 (which extends only to the Provinces of Bengal and of Eastern Bengal and Assam, but which contains a provision empowering the Governor-General in Council at any time by notification to extend the whole or any part of it to any other Province).
XV.—The Indian Ports Act, 1908.
XVI.—The Indian Registration Act, 1908.
XVII.—The Indian Emigration Act, 1908.
XVIII.—The Indian Merchant Shipping (Amendment) Act, 1908.

[General Acts of 1909.]

I.—The Indian Steamships Law Amendment Act, 1909.
II.—The Indian Paper Currency (Amendment) Act, 1909.
III. The Presidency-towns Insolvency Act, 1909 (which comes into force on the 1st January 1910).
IV.—The Whipping Act, 1909.
V.—The Amending (Army) Act, 1909.

CHAP. III.—PROTECTION.

The Civil Procedure Code (Act V of 1908) was passed during the Legislative year 1907-08 but was omitted from the Report for that year as it took effect only from the 1st January 1909.

Extension of Acts to the Shan States.

49. The Indian Arms Act, 1878, was extended to the notified areas of Taunggyi in the State of Yawnghwe, Lashio in the State of North Hsenwi, and Loilem in the State of Lai Hka.

The Burma Village Act, 1907, was extended to the State of Möng Mit and its dependency Möng Lāng.

Police.

Strength, distribution and cost.

50. The work of re-organising the Police in accordance with the recommendations of the Police Commission was completed in 1907. Steps were taken in 1908 to bring the force in all districts up to the increased sanctioned strength as far as possible. Nine officers, including Mr. McDonnell, Commissioner of Police, Rangoon, retired on special pensions during the year and nine Military Officers were appointed by the Government of India as Assistant Superintendents. Five Probationary Assistant Superintendents were appointed in England and arrived in December 1908. Four additional appointments in the grade of Assistant Superintendent and six in that of Deputy Superintendent were sanctioned in order to provide the full number of officers for Assistant and Deputy Superintendents' charges. The sanctioned strength of the Civil Police force excluding the Rangoon Town Police at the end of 1908 was 1,237 officers and 13,812 men. The actual strength was 1,126 officers and 13,059 men. The number of men short of strength was reduced by over fifty per cent. during the year, but the shortage of officers increased. The sanctioned strength was increased by two Sub-Inspectors, 14 Head Constables and 72 Constables during the year. The increase was made up of small increases in a number of districts which were required for various reasons. The shortage of officers was reported to be due to the orders of the Government of India which restrict the number of Sub-Inspectorships which may be filled by the promotion of Head Constables to fifteen per cent. of the vacancies. Two new police stations and one outpost were sanctioned and established during the year and one outpost was abolished. The cost of the Police Force was Rs. 53,73,898 as compared with Rs. 47,44,295 in 1907, an increase of Rs. 6,29,603. This increase was due firstly, to increased expenditure due to re-organisation being met throughout the year instead of for four months only as in 1907; secondly, to the increased actual strength of the force; thirdly, to an increase in the number of superior officers and to proportionate increase in contingent expenditure.

Recruitment and conduct.

51. Difficulty in recruiting was again reported from several districts where it has not yet been found possible to provide proper housing accommodation for the sanctioned strength of the force and where the high wages obtainable in other callings have to some extent tended to make service in the Police unpopular among Burmans. Nine officers and 405 men were dismissed from the force for all causes during the year, a decrease of four officers and twelve men as compared with the figures of 1907. The number of departmental punishments was practically unaltered. The number of officers and men rewarded was 166 more than in 1907. One unsatisfactory feature of the year was that the number of deserters from the force increased from 144 in the previous year to 230.

Education and training.

52. The number of literate men in the Police increased by 665 owing to continued recruitment to bring the numbers up to sanctioned strength; but the inclusion of the Police Force of the Chin Hills and the Pakôkku Hill Tracts, which consist almost wholly of illiterate constables, in the figures this year for the first time reduced the percentage of literates to the whole force from 87 to 85 per cent. The necessity for providing for the training of large numbers of recruits rendered

it impossible to pass as many old constables as usual through the District Police Training Depôts and only 2,942 men were thus trained as compared with 3,898 in 1907. Of these 2,942 Constables, 2,547 or 87 per cent. qualified. The number of recruits who entered the Training Depôts increased from 1,941 in 1907 to 2,546 in 1908; 1,502 recruits appeared for the final qualifying examination of whom 1,426 passed. The number remaining at the depôts at the end of the year was 626. The number of officers and men who appeared at the quarterly examinations was 1,960 of whom 1,731 or 88 per cent. passed as against 83 per cent. in 1907. The numbers who passed through the course of musketry training were 8,097 Constables and 1,439 recruits. The figure of merit obtained was 66 as compared with 62 in 1907.

Buildings.

53. The sum of Rs. 3,30,000 was provided in the Budget of the Public Works Department for the year 1908-09 for the construction of Police buildings. Of this amount only Rs. 11,300 was available for new works, the remainder being absorbed by buildings left incomplete at the close of the previous year. The Mandalay Provincial Police Training Depôt buildings were completed with the exception of the light installation and water-supply. A sum of Rs. 2,05,000 was also usefully spent during the year on Petty Construction and Repairs. The lack of sufficient house accommodation for the force and the want of proper Police Station buildings were much felt during the year and hampered the working of the Police in many ways. Financial considerations unfortunately render impossible the immediate provision of all that is required, but some relief has been afforded by the hiring of houses for officers and men at the expense of Government where the existing accommodation is insufficient.

Crime and the working of the Police.

54. The outstanding feature of the year was that there was a substantial increase of crime while the proportion of success achieved in the detection of criminals and the recovery of stolen property remained stationary. The total number of true cases of cognizable offences dealt with during the year was 42,103 as compared with 39,962 in 1907. Exclusive of cases under Class VI which deals only with "Offences against Religion," "Public Nuisances" and "Offences under Special and Local Laws" there remained an increase of about 1,000 in the number of more serious offences over the previous year. Under Class II "Serious offences against the person" there was an increase of 520 cases, Class III "Serious offences against the person or property or against property only" shewed an increase of 442 cases, Class IV "Minor offences against the person" of 31 cases, while in Class V "Minor offences against property" there was a decrease of 20 cases. The increase in crime is shewn by the figures to be most noticeable in the case of the more serious offences. There was an increase in the number of cases of murder of 41 and of grievous hurt of 206. This increase must be connected with the undoubted fact that the use or abuse of intoxicating liquor among Burmans, especially in Lower Burma, is becoming more common every year. The number of dacoities increased by three and fifty per cent. of the cases ended in conviction, the same result as in the previous year. In the Thatôn District a gang of twenty-one Shan dacoits with fire-arms from Siamese territory raided a village and made good their escape across the border with property valued at Rs. 5,000. There was an increase in the number of robberies of sixty-two cases over the figures of the previous year. The total number of violent crimes was 123 in excess of those of 1907, being 1,054 cases as compared with 931. Fire-arms were used in 59 cases as compared with 69 in 1907. This figure is still very high and the importance of a strict enforcement of the Arms Act has again been insisted upon. The number of cases of cattle theft fell from 2,759 cases in 1907 to 2,590 in 1908 and the decrease was most marked in Tharrawaddy, Thatôn and Hanthawaddy, the districts in which this form of crime is most common. Special efforts were made in all districts by the enforcement of village responsibility under the Track Law, the upkeep of village fences, by regular patrols and by giving rewards for information to reduce cattle theft as far as possible and these measures met with a fair measure of success.

CHAP. III.—PROTECTION. Detection.

55. Excluding cases under Class VI the number of true cases dealt with by the Courts and Police was 26,957 as compared with 25,964 in 1907. Of this number 23,740 or 88 per cent. were investigated by the Police, while investigation was refused in 1,754 cases. Of the cases investigated 12,161 or 51 per cent. resulted in conviction. This percentage is the same as that of 1907. The percentage of cases convicted to cases tried 85, was also the same in both years. In 15,939 cognizable cases property valued at Rs. 19,32,586 was reported as stolen and in 8,219 cases property valued at Rs. 6,14,508 was recovered. Although the value of property stolen was nearly four lakhs of rupees greater than in 1907 the percentage of recoveries remained the same as in that year.

Preventive sections.

56. The number of persons prosecuted under the preventive sections of the Code of Criminal Procedure increased from 2,145 in 1907 to 2,396 in 1908. Of this number 1,892 or 79 per cent. were called on to furnish security as against 78 per cent. in 1907. The principles in accordance with which these sections should be applied are now generally understood and acted upon. A multitude of prosecutions of petty offenders is discouraged and the law is only applied to persons of dangerous character or suspected organisers of crime on a large scale. In several districts such as Tharrawaddy in which a distinct improvement in the working of the Police during the year was perceptible, this result was attributed, at least in part, to a judicious use of the preventive sections of the Code. The gradual increase in the percentage of convictions also shews that more care is now observed in instituting prosecutions.

Surveillance and identification.

57. The percentage of criminals borne on Police Registers whose whereabouts remained untraced decreased from 16 at the end of 1907 to 13 at the end of 1908 but was still unduly high. It is believed however that a thorough inspection of the registers of several districts would result in the deletion of many names which have been borne on them for years as untraced and whose owners are now probably dead. One hundred and sixty-one men were ordered under section 565 of the Code of Criminal Procedure to notify their residence as against 145 in 1907. The beat patrol system has been retained in Burma and is reported to have been of great use in the supervision of released criminals. The number of convicts identified as previously convicted offenders increased from 2,879 in 1907 to 3,271 in 1908. Of these all save 20 were identified by the Police before conviction. The working of the Finger Print Bureau again proved of the utmost value in tracing criminals with *aliases* which were gazetted as 'whereabouts unknown.' The work of condensing the Indices to the Police Crime Gazette, Parts I and II (Criminals whose whereabouts are unknown and absconded offenders) from 1885 to 1907 into one volume for each part was completed. New rules, which have been framed under the orders of the Government of India, for the Police surveillance of bad characters, were introduced with effect from the 1st January 1909.

Railway Police.

58. The strength of this force and the number of Police stations remained unchanged during the year of report. The number of true cognizable cases dealt with was 1,608, an increase of 445 over the figures for the previous year. The number of cases under Classes I to V increased from 715 to 957. Of the total number of cases 98 per cent. were investigated and the percentage in which a conviction was obtained was 54 as compared with 62 in 1907. In the more serious cases convictions were obtained in 33 per cent. of the cases investigated as compared with 44 per cent. in 1907. Three hundred and six cases of house-breaking were reported which were really thefts from closed waggons and the correctness of the classification is doubtful. These cases which are of the most difficult nature were principally responsible for the low percentage of cases in which the Police were successful. On the other hand a gratifying measure of success was obtained in dealing with violent crime. Five out of six cases of murder, one culpable homicide, one dacoity and seven out of eleven cases of robbery resulted in convictions being obtained.

CHAP. III.—PROTECTION. Military Police.

59. No changes were made in the sanctioned strength of the force during the year. The actual was below the sanctioned strength by 575 men on the 31st December. The results of plague and famine and of the changes in the pay of the rank and file of the Indian Army have become apparent in a difficulty in securing Sikh recruits. During the year 103 men were transferred to the Andamans Military Police. The number of men punished departmentally and judicially shewed an increase of one officer and 186 men over the figures of 1907, but the number of desertions decreased. The Kachins in the Military Police were again favourably reported on. The Commandant of the Myitkyina Battalion reported that several who have been put through a mounted infantry course were keen and should turn out fit for the work. Those who had joined the signalling classes shewed ability, capacity and intelligence. As regards Kachins in general he reported: "The Kachins can drill, shoot, signal, perform gymnastics and learn music as well as any one in India perhaps, but they need continual spurring. In course of time they will make excellent soldiers, but patience is required." The Myitkyina, Bhamo, Northern Shan States and Southern Shan States Battalions were re-armed during the year with Martini-Henry rifles, Mark IV. Difficulties in obtaining clothing and equipment for recruits were brought to light during the year and improved arrangements were sanctioned.

Relations between the Military Police and the people continued to be excellent. The usual escorts for civil officers on tour were furnished during the cold weather but no active operations were undertaken. The health of the force improved during the year. The sanitary conditions of the posts in Upper Burma have received careful attention and attempts are being made to combat malaria by the destruction of mosquitoes, the provision of mosquito nets and the systematic administration of quinine.

Punitive Police.

60. Four Punitive Police Forces which were imposed during 1907 were withdrawn in 1908 having effected their purpose in all cases. In consequence of a serious riot between the villagers of Alèywa and Wingabaw in the Pegu District a police force of one Head Constable and nine Constables was quartered on these villages for twelve months from the 1st January 1908 and proved effective for the maintenance of the peace.

Village Administration.

61. The number of village headmen in the Province increased from 17,906 in 1907 to 17,996 in 1908. In the Salween District the introduction of the Burma Village Act resulted in the appointment of 45 new headmen and in the Lower Chindwin District the Deputy Commissioner restored the appointment orders of 79 headmen which had been cancelled in 1907 by his predecessor on insufficient grounds. Steady progress was made in breaking up circles and the extension of the system of separate village-tracts, each under an independent headman. Satisfactory progress was also made in defining and demarcating the boundaries of village-tracts and issuing maps to headmen. The number of headmen exercising special criminal powers rose during the year from 701 to 850, and of those exercising special civil powers from 930 to 1,119. Under the new Village Act authority to confer special civil and criminal powers was delegated to Commissioners who made a liberal use of their powers. It was generally agreed that these special powers are exercised by headmen with discretion. Of 11,538 cases examined during the year the headman's decision was reversed in 415 only. The aggregate amount of fines inflicted by headmen amounted to Rs. 1,42,773 as compared with Rs. 1,28,200 in 1907. The work of headmen in the assessment and collection of the revenue was on the whole very satisfactory and the number of cases of fraud or embezzlement was as usual comparatively small. Difficulties were experienced by headmen in Hanthawaddy, the district surrounding Rangoon, on account of the large proportion of Indians among the rural population. In the Irrawaddy Division there were complaints of the bad assessment of capitation tax, and the need of close and frequent check of assessment rolls by Subdivisional and Township Officers has

CHAP. III.—PROTECTION.

been pointed out. It has been decided not to proceed further with the proposal to make the inhabitants of a village-tract collectively responsible for the revenue collected by their headman. The relations of headmen with the Police continue to be thoroughly satisfactory and the assistance rendered by them in the detection of crime and the arrest of offenders was of the greatest value. In fact one suggestion that headmen are over-zealous in this matter was received. On the other hand complaints of their apathy in matters connected with the Excise law were general and it is probable that in some cases they even encouraged the illicit distillation of liquor. Their work in the collection of vital statistics and in connection with sanitation was on the whole satisfactory. Three hundred and two headmen were removed or dismissed, 61 suspended and 711 fined during the year, as compared with 350, 41, and 749, respectively, in 1907. There was again a satisfactory decrease in the number of fines inflicted. The position of headman continued to be one generally sought after. *Thugyisa* land was granted during the year to several headmen whose other emoluments were insufficient. Exclusive of cases under the Track Law 173 village-tracts were fined in 1908 and the aggregate amount of fines imposed was Rs. 50,033. Despite several cases in which villagers displayed conspicuous courage in resisting and beating off attacks by gangs of dacoits and on account of which liberal rewards were paid, it must be admitted that as a rule the rural population has not yet learned to defend itself from such attacks. The strict enforcement of the policy of fines and rewards is, however, gradually bearing fruit and will be persevered in. The Track Law was applied in 47 cases in 1908 as compared with 56 in 1907 and the amount of fines inflicted fell from Rs. 10,085 to Rs. 6,093. It seems probable that insufficient use of the law was made in the Mandalay Division and in the Thayetmyo and Meiktila Districts. The Burma Village Act, 1907, came into force on the 1st January 1908, and a new Village Manual was issued. A blank note-book in which officers can enter their remarks and orders was issued as an experiment to every headman in certain districts in the Tenasserim Division. The maintenance and development of the accepted principles of village administration in the Province have proceeded steadily throughout the year.

Wild Animals and Snakes.

62. The total mortality caused by wild animals and snakes among human beings during 1908 was 1,164 as compared with 1,424 in 1907. The number of persons killed by wild animals has risen from 76 to 79. In the Pegu District a man-eating tiger, which has since been shot, killed six, and a tuskless elephant two persons. The number of deaths from snake-bite decreased from 1,348 to 1,085, the principal decreases being reported from Upper Burma. Sir Lauder Brunton's lancets have been widely distributed throughout the Province. In the Prome District, of ten cases treated, nine recovered and the person who died was treated too long after being bitten to make recovery possible. In Magwe 31 persons said to have been bitten by Russell's vipers and one by a cobra, were treated, with the result that 23 recovered. Statistics are, however, deceptive, as in a number of cases treated with the lancet it was not certain that the snake was of a poisonous type. The total mortality among cattle during the year was 13,519 as compared with 11,697 in 1907. The number of deaths has been steadily rising year by year, and is due to some extent to increased efficiency of registration. An increase of 1,082 deaths caused by animals and of 740 by snakes was recorded. In the Shwebo District the number killed by wild animals increased from 358 to 777, of which 660 deaths were caused by leopards. In Hanthawaddy the number of deaths from snake-bite increased by 407 and special measures were taken to discover localities specially infested by snakes with a view to their destruction. The number of wild animals killed in 1908 was 2,535 as compared with 2,391 in 1907, and the amount paid in rewards increased by Rs. 3,003. During the year the Lieutenant-Governor sanctioned the grant of the same reward for the capture as for the destruction of tigers, leopards and panthers, the captured animals to be sent to the Zoological Gardens, Rangoon. Four hundred and sixty-eight new licenses under the Arms Act were granted during the year, and the total in force at its close was 1,179 as compared with 1,034 in 1907.

63. The Rangoon Town Police continued to be administered as a force separate from the Provincial Police during the year. The sanctioned strength was 1,034, an increase of two over the figure for 1907. The actual strength at the end of the year was 1,017. The cost of the force rose from Rs. 4,49,126 in 1907 to Rs. 4,58,586. One officer and 28 men were dismissed or removed during the year as compared with one officer and 20 men in 1907. There were four convictions by Magistrates as against two in the previous year, and one prosecution under the Rangoon Police Act as against none in 1907. Four officers and 16 men died during the year and one officer and 24 men retired on pensions or gratuities. Three officers and 66 men resigned during the year as compared with six officers and 74 men in 1907. The number of resignations was still large and was again attributed to the continuance of plague and famine in the districts in India, from which the men are principally recruited. The strength of the force was also insufficient to provide a sufficiently large reserve, which resulted in some restriction to the grant of leave and a consequent increase in the number of resignations. The number of punishments shewed a large increase (three officers and 422 men as against seven officers and 322 men in 1907) but it was explained that special efforts were made to enforce greater cleanliness and better sanitary conditions in barracks and station enclosures which could only be effected by the imposition of small fines. The increase was confined to four months of the year only. The number of officers and men to whom payments were made from the Reward Fund increased from 398 to 468 and two officers and 16 men were commended by Magistrates. Indian recruits were easily obtained but difficulty continued to be felt in enlisting suitable Burmans. The class of men obtained during the year shewed some improvement but those recruits had not generally any intention of making the Police a life career. The great demand for Burmans of ordinary education in mercantile and other offices in Rangoon and the many more lucrative careers thereby open to them place a grave difficulty in the way of recruiting for the Police. The number of true cases of cognizable crime increased during the year from 12,840 to 13,331, but the number of offences under the Indian Penal Code, which alone need be considered in estimating the efficiency of the Police, decreased by 127 cases. There were nine cases of murder, of which two were convicted, three acquitted; in two the accused absconded and evidence was recorded against them under section 512, Code of Criminal Procedure, whilet wo remained undetected. The number of cases of grievous hurt and hurt with a dangerous weapon fell from 33 to 30, of which 16 ended in conviction, 9 in acquittal and 5 remained undetected. There was a satisfactory decrease in the number of robberies from 15 to 7 in five of which a conviction was obtained. Of the robberies there was only one case of a serious nature in which two men armed with dahs and revolvers killed one constable and wounded two others and two inhabitants of the quarter. One of the two escaped but the other was convicted and sentenced to ten years' transportation. There were two dacoities during the year both of which remained undetected. The number of house-breaking cases decreased by twelve and the number of cases of theft by 32. The decrease in the number of house-breaking cases was partly due to the arrest and conviction of one very dangerous criminal and the break-up of an organized gang of burglars. The number of thefts in buildings has decreased, while there has been an increase in the number of ordinary thefts. This result was in large measure due to the great improvement in the lighting of the town, so far at least as the main streets are concerned. The lighting of the side streets and of the Cantonment still left much to be desired. The percentage of the value of property recovered to that of property stolen was 25 as compared with 19 in 1907. The number of prosecutions under the Excise, Opium and Gambling Acts remained about the same. There came into force during the year an amendment to the Burma Towns Act in virtue of which all billiard saloons were licensed and placed under the control of the Police. The number of habitual criminals on the Police Registers and under surveillance increased during the year from 1,312 to 1410. Of these 340 were gazetted as having been lost sight of. Five hundred and forty-seven offenders were identified as having been previously convicted. Relations between the Police and the Ward Headmen have continued to be satisfactory. Four Headmen were presented by Government with silver

CHAP. III.—PROTECTION.

mounted dahs and certificates of honour in recognition of good service, and in October the Lieutenant-Governor held a reception of all Ward Headmen. The Police achieved a very considerable degree of success in dealing with rice theft, a very troublesome form of crime. Of 135 bags of rice reported as stolen 114 were recovered. The work of the River Police was good throughout.

Criminal Justice.

Courts.

64. In Lower Burma a new Sessions Division was formed during the year consisting of the Toungoo and Pegu Districts with headquarters at Toungoo and as a result a re-arrangement of the Prome, Hanthawaddy and Tenasserim Divisions took place. The Prome Division now consists of the Prome and Thayetmyo Districts, Hanthawaddy of the Hanthawaddy and Tharrawaddy Districts, and Tenasserim of the Thatôn, Amherst, Salween, Tavoy and Mergui Districts. The Sessions Judges of the Prome and Toungoo Divisions were appointed Additional Sessions Judges of the Hanthawaddy Division and disposed of several cases at Tharrawaddy and Rangoon respectively. The number of Judges and Magistrates subordinate to the Chief Court of Lower Burma was 310, and to the Judicial Commissioner of Upper Burma 206. The corresponding figures for 1907 were 291 and 208. Excluding Benches 345 Natives of India and 146 Europeans acted as Judges and Magistrates as compared with 329 Natives of India and 145 Europeans in 1907. The number of offences reported was 96,030 as against 94,909 in 1907. The increase was confined to Upper Burma the figures for the two years in Lower Burma being practically identical. The number of offences under the Penal Code increased by 834 in Lower Burma, the greater part of the increase being in offences affecting the human body among which murder was regrettably prominent. The number of cases brought to trial was 94,879 of which 81,983 were returned as true. The percentage of cases classified as true fell from 86·55 to 84·81 in Lower Burma and remained nearly the same in Upper Burma. The number of persons under trial during the year was 168,005 of whom 95,635 were convicted. The corresponding figures for 1907 were 165,155 and 95,010. The percentage was 57·53 in 1907 and 56·92 in 1908. There was an appreciable increase in the number of complaints dismissed under sections 203 and 204 of the Code of Criminal Procedure. The number of first offenders released on probation under section 562 of the Code of Criminal Procedure increased from 849 to 1,002, but sufficient use of the provisions of the section was not made in some districts in Upper Burma.

Disposal of cases.

65. The number of cases brought to trial was 94,879 as compared with 93,043 in 1907. The number of cases tried by District Magistrates decreased from 935 to 858 in Lower Burma and increased from 512 to 572 in Upper Burma. The number of cases tried by Honorary Magistrates was 25,924 in 1907 and 24,265 in 1908, the decrease being due to a decreased number of prosecutions under special and local laws in Rangoon. The number of persons remaining under trial at the close of the year was 6,163 as compared with 6,246 in 1907. The average duration of cases was eleven days in both Upper and Lower Burma, an increase of one day in the case of Upper Burma. 39·6 per cent. of the cases in Lower Burma and 24·42 in Upper Burma was tried summarily. The corresponding percentages in 1907 were 41 and 25. Six hundred and sixty-seven cases were disposed of by Sessions Judges as compared with 614 in 1907. The number of persons tried with the aid of assessors was 751 and the number tried by jury 77. The percentage of convictions in Sessions trials declined from 68 to 64 in Upper Burma and from 54·4 to 53·5 in Lower Burma. The number of cases committed to the Chief Court was 53 as against 69 and the percentage of conviction 53·5 as against 61·4 in the previous year. The number of cases referred to the Chief Court and the Judicial Commissioner under section 374 of the Code of Criminal Procedure for the confirmation of sentences of death was 131, and in 80 cases the sentence was confirmed.

Punishments.

66. The number of persons who were sentenced to pay fines increased from 74,260 in 1907 to 75,253 in 1908. The increase was nearly entirely confined to Lower Burma and took place despite the decreased number of prosecutions under special and local laws. The aggregate amount of fines inflicted was Rs. 8,06,741 and of fines realized Rs. 6,90,548. The corresponding figures for 1907 were Rs. 7,77,702 and Rs. 6,73,400. There was a further decrease in the number of sentences of whipping inflicted from 3,088 to 2,498. In Upper Burma it is said that Burman Magistrates are reluctant to inflict this form of punishment. The amount awarded as compensation under section 545 of the Code of Criminal Procedure remained almost the same as in 1907, having increased in Lower Burma and decreased in Upper Burma by almost the same amount. There was a slight decrease in the number of sentences of imprisonment of fifteen days and under, but a tendency to pass sentences of short terms of imprisonment when other forms of punishment were available was still noticeable in Lower Burma and was remarked on by the Honourable Judges of the Chief Court. The number of boys whose sentences were commuted to detention in a reformatory school was 28 as compared with 21 in 1907.

Appeals.

67. The number of appeals shews little variation, the total number of cases being 7,951 as against 7,946. The number disposed of was 7,898 as compared with 7,875. The percentage of cases in which the order of the lower court was confirmed fell from 65 to 58 in Upper Burma and from 70 to 68 in Lower Burma. The average duration of appeals was eighteen days in both parts of the Province, an increase of six days in Upper Burma being principally due to the long duration of a number of appeals in the Court of the Judicial Commissioner. The sentences of eight persons were enhanced on appeal in Upper Burma as compared with 54 persons in 1907. The number of appeals pending at the close of the year was 375 as compared with 367 in 1907. The Upper Burma figures shewed a decrease and those for Lower Burma an increase.

Revisions.

68. The number of cases called for in revision fell from 28,683 to 25,357. The decrease was confined to Lower Burma. The congestion of work in both the Chief Court and the Court of the Judicial Commissioner led to a smaller number of cases being called for on revision by those Courts. The number of persons whose cases were dealt with in revision by District Magistrates in Lower Burma fell from 12,751 to 10,055. In 100 cases called for the sentence was enhanced, in 236 it was reduced or altered and in 644 cases reversed. Interference was much less frequent than in the previous year.

Prisons.

Accommodation.

69. The old jail at Moulmein was evacuated and the new jail occupied on the 14th November 1908. The latter provides accommodation for 527 prisoners, *viz.*, 140 in cells and 387 in association. The total accommodation available at the close of 1908 was 14,929 as compared with 15,010 in the previous year, the difference of 81 being accounted for by (*a*) reduction of 126 consequent on the occupation of the new jail at Moulmein; (*b*) increase at Insein, Paungdè and Myingyan by the provision, respectively, of 22, 3 and 6 additional cells; increase of 14 at Myaungmya by extending the civil ward attached to this jail. The daily average population was 13,871 and the number remaining at the end of the year 13,555 as compared with 13,721 and 14,304 in 1907. The jail at Meiktila is now reserved exclusively for the accommodation of prisoners under 18 years of age. In the management of this jail it is intended to adopt what is known as the Borstal system and a Committee has formulated proposals which are under consideration for the treatment of prisoners confined therein on reformatory rather than penal lines. Continued progress was made during the year in the separation of habitual criminals from casual criminals, and the system appears to have been carried out as far as the present need for economy in all Departments will permit.

CHAP. III.—PROTECTION. The system of the supervision of habitual criminals in the jails at Mandalay, Insein and Myingyan by paid warders exclusively has not been long enough in force to enable a conclusion to be formed as to its advantages or disadvantages

Prisoners.

70. The year 1908 opened with 14,304 prisoners, shewing an increase of 175 over the corresponding number in the previous year. There was a decrease of 1,435 and 511 in the total number of admissions and discharges respectively, while the daily average (13,871) shews an increase of 150 over that of the previous year and is the highest on record since 1897. The chief reason for the increase was the suspension of the deportation of prisoners sentenced to transportation for a term of years to the Andamans. The number of prisoners received by direct committal and by transfer was 33,088 as compared with 34,473 and the number discharged from all causes totalled 33,787 against 34,298 in 1907. Releases under the ordinary remission rules fell from 4,774 in 1907 to 4,753 in 1908. The number of re-convicted prisoners was 4,251 against 4,090 in 1907 and the ratio per cent. to the total number of convicts admitted was 23·16 against 22·09 in the previous year. The highest ratio was obtained at Magwe (33·19) and the lowest at Mogôk (6·55). The number of youthful offenders, under 15 years of age, committed to jail was 59 (including two girls) of whom 16 boys had been previously convicted against 39 (all males) in 1907 of whom 13 had been previously convicted.

Discipline.

71. The daily average number of convicts rose from 13,008 to 13,164 and the number of prison offences increased from 38,484 to 40,900. Twenty-two out of the total number were dealt with by Criminal Courts, and the remainder by Jail Superintendents. In the previous year 21 offences came before Magistrates. The increase occurred mainly in offences in relation to work and is ascribed to more attention than heretofore being paid to the exaction of tasks. Offences relating to assaults, mutiny and escapes rose from 506 in 1907 to 659 in 1908. Six assaults of a serious nature, two at Rangoon, one at Insein, one at Bassein, one at Mandalay and one at Prome occurred during the year. The most serious was at Insein where a prisoner who had, on a previous occasion been concerned in an attack on the chief jailor, committed an unprovoked assault, with the help of two other convicts, on an assistant jailor who had reported the prisoner twice for bad work during the previous week. The injuries received by the assistant jailor were severe. The convicts, on being prosecuted, were sentenced by the Chief Court to seven years' transportation each. An increase in the number of offences occurred under all heads except "All other breaches of jail rules." The ratio of all punishments to average population rose from 295·85 to 310·70. As usual, of the total number (40,900) of offences committed by all classes during the year, 22,335 or more than one-half were committed by habitual criminals, shewing that though the habitual class in the jails during the year represented only 40·22 per cent. of the average population, about 54·61 per cent. of the offences were committed by them. The number of floggings rose from 121 in 1907 to 124 in 1908, this form of punishment having been awarded to 85 habitual as compared with 39 casual criminals. The number of punishments inflicted on convict officers who averaged 2,410 during the year was 10,336 or 4·29 punishments for each convict officer as compared with 9,378 or 4·01 in 1907. There were 11 escapes during the year as compared with 6 in 1907 and 12 in 1906. Eight prisoners three of whom had escaped in previous years were re-captured during the year.

Financial.

72. The gross cost of upkeep increased from Rs. 8,09,401 to Rs. 9,34,055 and the average cost per prisoner rose from Rs. 58-15-10 in 1907 to Rs. 67-5-5, as the result of the re-organization of the warder establishment, the increase in the daily average number of prisoners and the high prices of foodstuffs. Deducting the cash earnings of prisoners from the gross cost of maintenance, the net cost of the Prison Administration was Rs. 7,22,760-7-0 against Rs. 6,22,217-8-0 or Rs. 52-1-0 per head of average strength against Rs. 45-6-0 in the previous year. The manufacture profits rose from Rs. 1,87,183-7-9 in 1907

to Rs. 2,11,294-8-7 in 1908. By the employment of prison labour in the execution of "Jail works and repairs" a saving of Rs. 17,725 was made by Government. The profits of the Jail Branch Press which increased from Rs. 1,67,224 to Rs. 1,84,273 are not included in the total earnings. The total estimated value of vegetables produced from the jail gardens was Rs. 82,650 as compared with Rs. 81,925 in the previous year. The value of paddy, *dhal*, *pègya* (red beans), condiments, tamarind and groundnut obtained from jail farms was Rs. 28,187 as compared with Rs. 23,758 in 1907. CHAP. III.—PROTECTION.

73. The health of the prison population was not so good as in the previous year which was however exceptional in this respect. With the rise of from 13,721 to 13,871 in the daily average number in confinement, the number admitted into hospital increased from 3,506 to 3,840, the daily average sick from 190 to 215 and the deaths from 163 to 184, the ratios working out to 276·84, 15·50 and 13·27, respectively, against 255·52, 13·85 and 11·88 per mille in the year 1907. The ratio per cent. of opium consumers admitted into jail decreased from 15·44 to 13·07. Bhamo and Henzada again shew the highest percentages, *viz.*, 46·67 and 42·22, respectively. 6·42 per cent. of the total mortality was amongst opium consumers. Vital.

Civil Justice.

74. The administration of Civil Justice remained throughout the year under the control of the Chief Court in Lower Burma and of the Judicial Commissioner in Upper Burma. An addition of one was made to the number of Divisional Judges in Lower Burma and the Divisions were re-arranged as described in the Report on Criminal Justice. In Upper Burma a separate Judge was placed in charge of the Court of Small Causes, Mandalay, thus relieving the District Judge of part of his duties, and some re-arrangement of the work of various Township Courts in the Meiktila and Yamèthin Districts was effected. The number of European and Native Judicial Officers during the year was 98 and 255 respectively, the figures for 1907 being 104 and 248. The total receipts of the Courts, Civil and Criminal, amounted to Rs. 27,66,296 and the charges to Rs. 49,37,350 as compared with Rs. 8,96,979 and Rs. 50,21,945 in 1907. There was a large increase under the head of "Salaries" which was counterbalanced by a corresponding decrease in the amount expended on buildings. Courts.

75. The total number of suits instituted in all Courts in Lower Burma fell from 58,802 in 1907 to 54,623 in the year of report. The decrease was common to all Courts, District, Subdivisional and Township. In the Rangoon Court of Small Causes the number of suits instituted was very little less than in 1907 and in the Chief Court of Lower Burma there was a substantial increase (from 393 to 438). This decrease in litigation has been continuous since 1906 and the most probable cause assigned for it is that money-lenders from the Madras Presidency have for several years been curtailing their operations, which were very extensive, in Burma. This movement began in 1905 and led to the very great increase in litigation which was the feature of that year and of 1906, and its remoter results are apparent in the present steady decline in the volume of litigation. The figures for Upper Burma shewed little variation and in the opinion of the Judicial Commissioner nothing is more difficult than to account for the ebb and flow of the tide of litigation in that part of the Province. In Lower Burma the greater part of the decrease occurred in the class of suits for money or moveable property, the percentage of which to the whole slightly declined from 90·7 to 89·4. There was an increase in the number of suits for immoveable property from 1,144 to 1,507 in Lower Burma and from 945 to 1,408 in Upper Burma. The number of mortgage suits decreased from 2,731 to 2,683 in the former and from 372 to 276 in the latter, but it is doubtful whether the classification of such cases is always correct. The variations in the number of other classes of cases do not call for remark. Volume and classification of litigation.

CHAP. III.—PROTECTION.

Disposal of cases.

76. The number of suits before the Courts was 62,323 in Lower Burma and 25,228 in Upper Burma as compared with 66,318 and 25,435 in 1907. The number pending at the close of the year was 7,365 as against 7,103 in Lower Burma and 1,974 as against 1,836 in Upper Burma. The full effect of the orders which require mortgage suits to be shewn as pending until the final decree is passed could not appear in 1907, and those orders were responsible for the greater part of the increase in the number of pending cases in Lower Burma. The average duration of contested and uncontested cases increased from 73 and 45 days to 78 and 47 days in Lower Burma and from 49 and 33 days to 60 and 35 days in Upper Burma. The duration of cases of all kinds in the Court of the Judicial Commissioner of Upper Burma and in the Chief Court of Lower Burma was excessive. The number of Judges in both Courts has proved insufficient for the disposal of the work coming before them and proposals for a remedy were under the consideration of Government at the close of the year. As a temporary measure a fifth Judge of the Chief Court and an Additional Judicial Commissioner were appointed during part of the year. The duration of cases in other Courts was also affected by the orders regarding mortgage suits above referred to. The number of miscellaneous cases before the Courts during the year fell from 9,342 in 1907 to 8,590 in 1908 in Lower Burma and increased slightly in Upper Burma.

Execution of decrees.

77. The number of applications for execution of decrees was 55,858 as compared with 56,465 in 1907. The amount realised in execution was Rs. 25,89,112 the figures for 1907 being Rs. 26,96,864. The number of applications pending at the close of the year fell from 9,143 to 8,539. The percentage of applications that were wholly infructuous fell from 48·88 to 48·74. There was a slight increase from 1,080 to 1,098, in the number of cases in which the judgment-debtor was imprisoned and a considerable decrease in the number of sales of moveable property. The number of cases in which immoveable property was sold was also slightly less than in the previous year.

Insolvency proceedings.

78. The number of these cases before the Courts was 657 as compared with 690 in 1907, the whole of the decrease being in Upper Burma. The number pending at the close of the year fell from 130 to 99. The amount of creditors' claims admitted increased from Rs. 2,69,949 to Rs. 5,61,805, the increase being common to both Upper and Lower Burma. The amount of assets realised however was Rs. 31,997 as compared with Rs. 2,321 in 1907. The Provincial Insolvency Act III of 1907 came into force with effect from the 1st January 1908. The reports have shewn that its provisions are far from being widely known or taken advantage of among the people. In the opinion of most of the District Judges its provisions are too elaborate to be suited to the needs of the Province. The fact is that outside Rangoon and the seaport towns insolvency jurisdiction is in its infancy and applications are hardly ever made save by debtors in the face of actual or threatened imprisonment in execution of a decree. Applications by creditors are almost unknown. The people much prefer making private adjustments to resorting to the Courts.

Appeals.

79. The aggregate number of regular appeals disposed of by the Courts was 5,047, a slight increase over the figures of 1907. The number of appeals pending at the close of the year increased from 1,300 to 1,558. The average duration of appeals was slightly less than in 1907, but the figures in the Chief Court of Lower Burma and the Court of the Judicial Commissioner of Upper Burma are still very high. The decree of the lower court was confirmed in 62·12 per cent. of the appeals as compared with 63·31 per cent. in 1907.

Registration.

General.

80. Revised Rules under section 8 of the Upper Burma Registration Regulation, 1897, and new Directions were published and brought into force during the

year with the result that the Upper Burma Registration Manual is now self-contained and Registration Officers in Upper Burma are rendered independent of the Indian Registration Act and Rules. The number of non-official Sub-Registrars was increased to 20 and their work has been on the whole favourably reported on. The number of Registration Offices was increased by one. CHAP. III.—PROTECTION.

81. The total number of compulsory registrations affecting immoveable property decreased by 495 and the aggregate value by Rs. 1,24,35,885. In Lower Burma the number of instruments of sale of property of the value of over Rs. 100 increased by 1,531, but the value of the property was over five lakhs less than that of the property whose sales were registered in 1907. In Upper Burma the number of deeds of sale registered has increased by 203, but the value is less by 84 lakhs of rupees. This abnormal decrease in value is due to the inclusion in last year's figures of two deeds of sale of oil wells of very high value in the Pakôkku and Magwe Districts. In mortgages a comparison with the figures of 1907 shews in Lower Burma a decrease of 3,211 in the number of documents and of over 51 lakhs of rupees in the value of the property with which they deal; in Upper Burma increases of 658 in numbers and 18·5 lakhs in value. For the latter increase the extension of irrigation in the Minbu District and the consequent appreciation in the value of land, and the increased activity in the petroleum industry in Magwe were responsible. The principal cause of the decline in Lower Burma was the enforcement of the provisions of Financial Commissioner's Circular No. 4 of 1906 which prohibited the sale or mortgage of lands held on lease or grant in violation of the conditions of the lease or grant. Action has been taken by resuming lands which the lessee or grantee has forfeited by infringement of the conditions under which it is held. The rules have thus become generally understood and capitalists refuse to lend money on mortgages of such lands. Subsidiary causes were the stringency in the money market which subsisted during the year and resulted in the failure of some Chetty firms; the collapse of the land boom in Rangoon which shewed its effect in the diminished number of sales in Rangoon Town District; and the proposal to enact legislation in restriction of the power of alienation of landholders throughout Lower Burma, though the influence of this last cause was not great. Documents affecting moveable property decreased in Lower Burma by approximately 13 per cent. in number and 25 per cent. in aggregate value, while in Upper Burma the percentage of decrease was 11 as regards number with an increase of 16 per cent. in aggregate value. Deeds registered.

82. The income from fees in Lower Burma decreased by Rs. 8,780, a fall of nearly 7 per cent., while in Upper Burma it rose by 11 per cent. Expenditure in Lower Burma increased by 9 per cent. and in Upper Burma by 4 per cent., the total for the whole Province being Rs. 86,929. The relation of expenditure to income was 46 per cent. against nearly 41 per cent. in the previous year. In Lower Burma it was 47 and in Upper Burma 42 per cent. The institution of non-official Sub-Registrars was responsible for the increase of expenditure in Lower Burma. Income and expenditure.

Joint Stock Companies.

83. The number of Joint Stock Companies limited by shares increased by 17 during 1908-09. Twenty-three new Companies were registered and six Companies wound up their business during the year. The number working at the close of the year was 85. An Association limited by guarantee was registered during the year, thus raising the number of such Associations to six. Number of Companies.

84. The aggregate nominal capital of all Companies rose from 337 to 762 lakhs and the paid-up capital from 138 to 251 lakhs. One Company increased its nominal capital, thirty Companies their paid-up capital and three Companies both their nominal and paid-up capital during the year. There were no reductions of capital. Capital.

CHAP. III.—PROTECTION. General.

85. The fees realised during the year amounted to Rs. 11,964 as compared with Rs. 5,383 in 1907-08, the increase being the result of the larger number of registrations and the larger nominal capital. Various oil winning and refining Companies with an aggregate nominal capital of Rs. 2,45,00,000 were floated during the year and Messrs. Jamal Brothers converted their cotton and rice milling business into two limited liability Companies with a combined nominal capital of Rs. 1,30,00,000.

Local Boards Administration.

86. There are no Local Boards in Burma. The District Funds in Upper Burma and the District Cess Funds in Lower Burma are administered by the Deputy Commissioners of the districts to which they belong. Some account of their receipts and expenditure is given in paragraphs 176 and 177.

Municipal Administration.

Rangoon Municipality.

87. The ordinary expenditure of the Rangoon Municipality during the year exceeded the ordinary receipts by over two lakhs of rupees. The deficit was the result of losses on the working of the special services such as the water tax and the scavenging tax funds. Electric lighting was installed throughout the main streets of the town during the year. The imposition of a tax of one rupee per annum upon each dog kept within Municipal limits was sanctioned by Government but the Municipal Committee have, owing to practical difficulties in the way of its enforcement, postponed the date from which the tax shall be levied. The Committee after full consideration came to the conclusion that the establishment of a model cow-keepers' village is an impracticable proposal and resolved to trust to strict supervision of the existing sources of milk supply for the prevention of pollution. A definite scheme intended to induce private individuals to build cooly barracks which will satisfy all sanitary requirements was formulated in order to solve the problem of providing accommodation for the enormous floating population of coolies in Rangoon. The death-rate per mille was 36·12 in 1908 as compared with 39·83 in 1907, the number of deaths from plague and cholera was less, and there was comparative immunity from small-pox. The figures regarding infantile mortality were better than in previous years but the death-rate is still high. The efforts of the Committee to enforce the vaccination of coolies met with only a moderate measure of success. The managers of the mills did not afford the assistance which was expected.

Minor Municipalities and their Committees.

88. The number of minor Municipalities was 43 the same as in the previous year, and the number of members of Municipal Committees, 540 of whom 63 were elected members, also remained unchanged. Elected members sat on eight Municipal Committees during the year. General elections took place at Pegu, Bassein, Toungoo and Mandalay and one bye-election at Mandalay. At Pegu and Mandalay alone were there any contests for seats, while at Toungoo only the Burmese community even nominated candidates. Pegu, Yandoon and Mandalay are the only Municipalities which elected the full number of members allowed. The average attendance at meetings was about the same as in 1907-08 and several members were removed for failure to attend the meetings of their Committees.

Minor Municipalities—Taxation.

89. The average incidence of taxation rose from Rs. 1-15-7 to Rs. 2-0-8 and of income from Rs. 4-13-5 to Rs. 5-4-10. The incidence of taxation was lightest at Bhamo and Taungdwingyi where it was eight annas seven pies and eight annas nine pies respectively, and heaviest at Moulmein where it was Rs. 4-11-3. Assessments on houses and land were revised in several towns and proposals for revised assessments in Tavoy and Mergui were sanctioned during the year. A water-rate bringing in over Rs. 26,000 per annum was sanctioned in Akyab on the completion

of the new water-works and was the cause of the increase of over 40 per cent. in the incidence of taxation in that town. Taxes on land uncovered by buildings were imposed at Sandoway and Kyaikto, lighting taxes at Kyaiklat and Pyinmana, scavenging and conservancy taxes at Thatôn, latrine taxes at Pakôkku and Mônywa, a tax on vehicles at Toungoo, and a tax on private markets at Paungdè. In several other towns modifications were made in respect of existing taxes. CHAP. III.—PROTECTION.

90. The water-works at Akyab were completed and supplying water to the town by the end of February 1909. The original estimate of cost was largely exceeded and in addition to a loan of three lakhs in 1905 a further loan of Rs. 30,000 was advanced and a grant of Rs. 25,000 made by Government during the year of report. The search for a water-supply scheme within the means of the Mandalay Municipal Committee had no success. Abyssinian tube wells were sunk at Mônywa and Minbu. At Prome a failure of the pumping machinery resulted in an outbreak of cholera in the town and a grant of Rs. 15,000 was made by Government to enable measures to be taken to prevent a similar occurrence in future. Estimates were prepared for a water-supply scheme for Bassein to be carried out with the help of a loan of one lakh and a grant of Rs. 50,000 from Government; objections were raised by the inhabitants to the cost of upkeep and the question of the adoption of the scheme is now being decided by a referendum in the town. As in the previous year much of the sanitary work undertaken was in connection with plague, though, except in Mandalay which suffered severely, the epidemics of plague were less serious than in the previous year, particularly in Moulmein and Prome. In many Municipalities efforts are being made to put the town in a permanently sanitary condition and to render bazaars, granaries, and other buildings as far as possible rat-proof. The only important drainage scheme started during the year was the improvement of the Shwetachaung canal at Mandalay, the cost of which is estimated at Rs. 1,30,000; a beginning was also made in the construction of masonry drains in the town. The drainage and reclamation work at Pyapôn was continued but this scheme will take several years to complete. An insanitary quarter at Mergui was improved by drainage and reclamation with the aid of a grant from Government, and a reclamation scheme was prepared for Tavoy. A new tram-line system of night conservancy at Henzada was completed and is now in working order. In some Municipalities experiments were made in the destruction of night-soil and road-sweepings by incineration. Minor Municipalities—Public Health and Convenience.

Military.

91. The total strength of the troops forming the Burma Garrison at the end of March 1909 was 11,224 officers and men, of whom 4,788 were Europeans. Strength of the garrison.

92. The total amount expended on Military Works, which in 1907-08 was Rs. 12·15 lakhs, was reduced during the year of report to Rs. 7·65 lakhs. Further progress was made with the scheme for the provision of accommodation at Maymyo for a battalion of British Infantry by the completion of the Family Hospital Officers' ward and quarters for the Subordinate Medical Staff. The estimated cost of the whole scheme was Rs. 9·32 lakhs and the total amount expended up to the close of the year Rs. 9·06 lakhs. A revised project estimate was submitted for sanction. A Thresh's disinfector was erected for the Station Hospital at Maymyo. At Rangoon quarters for the Staff Sergeants and a Regimental School for the Royal Garrison Artillery were built and the shingle roofs of four of the British Infantry barracks, which were over thirty years old, were replaced by Mangalore tiles. Quarters for British Officers of Native Infantry at Meiktila and Maymyo were completed and progress made with the quarters for the Officer Commanding at Bhamo. Improvements costing Rs. 7,000 were carried out in the zenana compounds at the last named station. Various general improvements in Cantonments were completed or in progress during the year, of which the following may be noted. A metalled road to the Slaughter-house at Maymyo was under construction, the piped Military works.

CHAP. III.—PROTECTION.

water-supply at Mandalay was extended to the North Transport Lines, and the construction of masonry drains in Fort C, Bhamo, was well advanced.

Military (Volunteering).

93. There were six Volunteer Corps in Burma during the year of report; three of these, the Port Defence, the Rangoon Volunteer Rifles, and the Burma Railways Volunteer Corps, have their headquarters in Rangoon; the Moulmein Volunteer Rifles and Artillery have their headquarters at Moulmein, and the Upper Burma Volunteer Rifles at Mandalay. During the year two new companies were added to the Rangoon Volunteer Rifles. The total strength of the six Corps as shewn by the rolls at the close of March 1909 was 2,875 adults, 397 cadets and 119 reservists shewing an increase over the figures of the previous year by 230 men. With 3,062 efficients, exclusive of the reservists, against 2,902 in 1907-08, the Corps taken together earned in capitation and other grants Rs. 1,17,969-8-0 or Rs. 2,292-8-0 more than in 1907-08. These figures do not include the 44 members of the South Andaman Volunteer Rifles Corps, which for administrative purposes is attached to the Rangoon Volunteer Rifle Corps and earned in grants Rs. 1,572.

Marine.

Light-houses and Light-ships.

94. A scheme for the improvement of the light-houses off the Coast of Burma, by the installation of incandescent lighting apparatus of the latest design and by structural alterations to towers with the object of securing better ventilation and immunity from any danger of destruction by fire, was taken in hand during the year and considerable progress made. In the Eastern Grove and Oyster Island light-houses the work was completed and at Green Island and Table Island operations were in progress. The light-ships "Kemmendine" and "Danidaw" were overhauled and repaired and the "Kalagauk" was in dock at the end of the year. The "Kemmendine" was fitted with a new lantern with improved dioptric lights of 700 candle-power and burning mineral oil. The light at Victoria Point was exhibited for the first time on the 20th October 1908 and has worked satisfactorily. It is a sixth order dioptric light visible on a clear night at a distance of six miles. The patent 93 days unattended Wigham's light exhibited at the west end of Zallataung Island belied the promise of its title as it was found that it would not work satisfactorily without attendance. The new light-house at Beacon Island was under construction during the year. The Royal Indian Marine Steamer "Minto" and the Royal Indian Marine Steamer "Mayo" visited the light-houses regularly conveying stores, provisions, reliefs and workmen of the Public Works Department. The light-houses and light-ships were inspected by the Principal Port Officer, Burma, and the Superintending Engineer, Maritime Circle, in the course of the year and were reported to be in a satisfactory condition. The number of cases of beri-beri among the light-house and light-ship crews was 25 of which two proved fatal. Only eight cases and no deaths took place in 1907-08. The expenditure on light-houses and light-ships during the year was Rs. 1,41,903 as compared with Rs. 1,75,446 in the previous year. Repairs by the Public Works Department cost Rs. 15,949 only as against Rs. 26,951. There was also a reduction from Rs. 1,29,604 to Rs. 1,05,721 on the cost of establishment, provisions, oil, stores and contingencies, etc. The receipts from Burma Coast Light dues were Rs. 3,73,652 as compared with Rs. 4,21,732 in the previous year in consequence of the smaller number of ships visiting the various ports in the Province.

Port Administration, Rangoon.

95. The revenue of the Port of Rangoon for the year including debt accounts was Rs. 45,08,267 and the expenditure, debt accounts also included, Rs. 39,32,423. The closing balance on the 31st March 1909 was Rs. 9,41,913. The ordinary revenue excluding debt accounts increased from Rs. 23,87,062 in 1907-08 to Rs. 28,86,166 in 1908-09. The principal source of the increase of revenue was

the inland wharfage dues the receipts from which increased with the expansion of the over-seas import trade and the re-shipment trade from Rangoon to other ports. The ordinary expenditure which was Rs. 22,91,447 in 1907-08 was Rs. 29,29,033 in 1908-09. Extra charges for interest and the debit to revenue of certain sums which had in former years been erroneously debited to capital account were the causes of the increase. On capital account a four per cent. loan of £500,000 was raised in London at 93½ during the year to pay for the improvements in the Rangoon River. The total indebtedness of the Port Commissioners which was Rs. 1,32,12,000 on the 1st April 1908 amounted to Rs. 2,07,12,000 on the 31st March 1909. The amount actually expended on new works during that period was Rs. 67,45,433 while the amount estimated for was Rs. 96,39,191. It was found impossible to advance construction as rapidly as had been estimated for in the various projects in hand. The revised estimates for the new wharf works amounting to Rs. 1,04,35,866 were sanctioned by Government in July 1908 and the total expenditure up to the 31st March 1909 was Rs. 92,01,993. The work on all but the last part of the scheme was at that date practically completed. Additional godowns for the accommodation of the inland trade were also erected. The Rangoon River Training Scheme continued to be the subject of discussion during the year. A decision on several points was arrived at and a commencement made with the actual work. The Chairman and Chief Engineer of the Port Commissioners made a tour in the course of which he visited the works on the Mississippi and other rivers in the United States and the Shanghai River. He discussed the subject later with a committee of experts in London. The proposals of the Chairman have since the close of the year been approved generally by the Government of India and an amended estimate with a definite programme and plans is in course of preparation. A new suction pump dredger arrived in Rangoon on the 3rd November 1908 and by this means a channel through the Hastings shoal below Rangoon has since the close of the year been opened to traffic. It was decided to obtain the stone required for the Rangoon River Works from the island of Kalagauk off the coast of Tenasserim and work on the island was begun in January 1908 and has gone on ever since. The jungle has been cleared, machinery erected and arrangements made for a settlement of 1,000 labourers on the island. Three hopper barges for the conveyance of the stone have arrived in Rangoon. In November 1908 orders were passed to abolish the medical inspection of passengers arriving by healthy ships at ports in Burma from ports in India, and to abolish also the inspection of passengers proceeding from any infected port in Burma to any port in India.

CHAP. III.—PROTECTION.

96. The gross pilotage receipts amounted to Rs. 2,53,287, being Rs. 32,448 less than the receipts of the previous year. A sum of Rs. 22,100 was added to the Depreciation Fund which stood at the end of the year at Rs. 49,100. The amount disbursed to the pilots was Rs. 1,73,201 or Rs. 16,021 less than in 1907-08. Sanction was accorded to an increase of three in the number of pilots, two of whom were appointed before the close of the year. A scheme for the re-organization of the Pilot Service involving various changes in the conditions of service was under discussion. It was decided that the Harbour Masters should, in future, be remunerated entirely by fixed salaries instead of partly by fixed salaries and partly by overtime fees as had previously been the case. All overtime fees will, in future, be credited to the Port Fund which will eventually gain by the change.

Pilot Service, Rangoon.

97. There are six minor Ports in Burma for which separate Port Funds are maintained. The income of these funds which was Rs. 3,77,378 in 1907-08 increased to Rs. 5,36,953 in 1908-09. These figures, however, included loans of Rs. 1,00,000 and Rs. 7,000 obtained by the Moulmein and Tavoy Port Funds respectively from Government. Deducting the amount of these loans the net aggregate revenue for the year was Rs. 4,29,953. The total expenditure of these funds was Rs. 4,36,936 and the closing balance Rs. 3,43,360. The expenditure in 1907-08 was Rs. 3,28,294 and the closing balance Rs. 2,43,343. There are Pilot Funds at Akyab, Bassein and Moulmein. These funds opened the year with a total balance of Rs. 27,077, their receipts amounted to Rs. 1,12,857 and their

Minor Ports.

CHAP. III.—PROTECTION.

expenditure to Rs. 1,06,504 and the closing balance at the end of the year was Rs. 33,430. The administration of the Ports of Akyab, Bassein and Moulmein continued to be directed by a Port Officer at each Port, but in March 1909 the formation of an Advisory Board to assist him in his duties was sanctioned. The Advisory Board at each Port consists of seven members, three officials, the Port Officer, the Deputy Commissioner and the Executive Engineer, and four non-official representatives of the various mercantile interests. The Board at each Port is to meet once a month and all matters affecting the Port with the exception of questions affecting the discipline or internal economy of the Port Staff, petty works and repairs, are placed before it. The Board votes on Resolutions and its proceedings are recorded, but its vote has no legal and binding effect on the Port Officer's executive discretion. The remaining Ports of Tavoy, Mergui and Kyaukpyu remained under the management of the Deputy Commissioners of the districts bearing these names.

Commercial Marine.

98. The number of steam vessels which entered Ports in Burma from foreign countries during the year 1908-09 was 371 and the total tonnage 808,592. The corresponding figures for 1907-08 were 438 and 966,901. The number of sailing ships and their aggregate tonnage were 58 and 11,306 as compared with 86 ships and 16,687 tons in 1907-08. Two hundred and fifty-five steamers with an aggregate tonnage of 618,791 tons entered the Chief Port, Rangoon, from foreign countries, while the number of sailing ships fell away to three with a tonnage of 4,824 tons. The number of steamers was less by 65 than in the previous year and the decrease in tonnage amounted to 144,225 tons. A slight decrease on comparison with the previous year is also perceptible in the figures relating to the coasting trade. The number of steamers and sailing ships which entered Ports in the Province fell from 3,646 to 3,640 and the total tonnage from 2,722,781 tons to 2,697,496 tons. The decrease was confined to Rangoon. The number of coasting steamers and sailing ships entering that Port in 1907-08 was 1,238 with an aggregate tonnage of 1,807,853 tons and in the year of report the figures were 1,222 and 1,763,824. These statistics merely reflect the depression in trade which marked the year and which is shewn in the statistics relating to Maritime Trade. Of the total number of 429 steamers and sailing vessels entering Ports from foreign countries during the year 271 or 63·17 per cent. were of British nationality. The percentage for the preceding year was 62·98. Of vessels sailing under foreign flags the number of Germans increased from 30 to 56 and the number of Japanese fell from 21 to 3. The number of Norwegian vessels also fell from 44 to 19.

Commercial Marine—Wrecks and Casualties.

99. On the 21st June 1908 the Master of the British India Steam Navigation Company's steamer "Oolabaria" observed a dismasted sailing ship flying signals of distress off the coast of Arakan. She proved to be the "Fathal Raman" of Muscat, a sailing ship of 1,000 tons on a voyage from Calcutta to Muscat in ballast with a native crew. She had been dismasted on the 17th June and had drifted before the wind till the "Oolabaria" came in sight on the 21st June. An unsuccessful attempt was made to pass a line to take her in tow and she was then abandoned, the crew being taken in the "Oolabaria" to Akyab, where an enquiry was held into the cause of the accident. In the Port of Rangoon there were 22 accidents to shipping during the year, seven while the ships were in charge of pilots and 15 while in charge of harbour masters. Six enquiries in all were held, one pilot being punished and two harbour masters warned.

Government Steamers and Launches.

100. Five steam launches were built during the year and one purchased, while two launches were sold by public auction. The Royal Indian Marine Steamer "Irrawaddy" was sold in May 1908 and for the remainder of the year the only vessels of the Royal Indian Marine on the Irrawaddy river were the "Sladen" and the "Bhamo." The earnings of Royal Indian Marine vessels fell from Rs. 2,18,018 in 1907-08 to Rs. 1,17,811 in the year of report, as a result partly of the smaller number of vessels and partly of a reduced trooping programme. The total amount earned by Local Government vessels in Upper and

Lower Burma was Rs. 4,98,914 or Rs. 23,006 more than in the previous year. In consequence of the higher price of coal the expenditure on fuel increased. The buoy boat "Wanderer" attached to the Port of Akyab was swept ashore by the tidal wave which followed the cyclone of the 11th November 1908, but was refloated and repaired. Two Excise boats and one River Police boat were so severely damaged in the same cyclone that they were condemned and two were sold. It was found during the year that the contract system for the supply of wood fuel in Upper Burma was not working satisfactorily and arrangements are being made for supply by the Forest Department. The construction of four steam launches and a houseboat has been sanctioned. All Government vessels and launches were fully employed during the year. CHAP. III.—PROTECTION.

101. The iron work and fenders of the jetty at Oyster Island were renewed and a screw pile jetty for the Public Works Department Light-house yard was completed. At Moulmein a tidal observatory and a semaphore mast were erected and the improvements to the Mission Street jetty were completed. A floating pontoon swing bridge and jetty were completed at No. 7 wharf in Bassein. During the open season of 1908-09 the Royal Indian Marine Steamer "Investigator" continued the survey of the Burma Coast from Gwa to Cape Negrais taking in about a hundred miles of coast line. In the Rangoon River an entirely new survey from the harbour limits to D'Silva Point was completed and copies of the chart printed. A survey of the channel coast line from Deserter's creek to Elephant Point and onwards as far as the lower western buoy was also completed. The channels and bars were surveyed or examined as required and the Pilot Service kept informed as to their condition. No serious alterations took place. The Hastings bar was carefully watched and the water examined periodically. Marine Works and Surveys.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

REFERENCES—

Season and Crop Report of Burma for the year ending the 30th June 1909.

Report of the Civil Veterinary Department, Burma, for the year 1908-09.

Land Revenue Administration Report of Burma for the year ended the 30th June 1909.

Report on the working of the Co-operative Credit Societies Act in Burma for the year ending the 30th June 1909.

Report of the Public Works Department, Burma (Irrigation), for the year 1908-09.

Report on the Operations of the Department of Agriculture, Burma, for the year ending the 30th June 1909.

Report of the Agri-Horticultural Society of Burma for the year 1908.

Report on the Forest Administration of Burma for the year ending the 30th June 1909.

Report on the Census of Burma, 1901.

Resolution on the Reports on the working of the Indian Factories Act in Lower Burma for the year 1908.

Report on the Maritime Trade and Customs Administration of Burma for the year 1908-09.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the year 1908-09, Part I, Foreign Trade, and Part II, Coasting Trade.

Note on the Transfrontier Trade of Burma during the year 1908-09.

Report of the Commissioners for the Port of Rangoon for the year 1908-09.

Report of the Public Works Department, Burma (Buildings and Roads Branch), for the year 1908-09.

Agricultural Statistics of India, Volume I.

Statistics of British India, Parts I, II and III.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volumes I and II.

Annual Statement of the Coasting Trade and Navigation of British India.

Agriculture.

Agricultural stock and cattle disease.

102. The returns of agricultural stock shewed decreases in the numbers of calves, sheep, goats and mules and increases under the heads of bulls, bullocks, cows, buffaloes, buffalo-calves, horses and ponies. As this was the first year in which an effective enumeration of agricultural stock was made by the Land Records Department it cannot be safely assumed that these increases and decreases represent the real state of affairs. The substitution of bullocks for buffaloes for agricultural purposes continued. The number of deaths of cattle from contagious diseases decreased from 24,316 to 19,581. The only serious outbreaks of rinderpest in Lower Burma occurred in the Akyab and Amherst Districts and in Upper Burma in Bhamo, Katha and Yamèthin. Foot-and-mouth disease was fairly common all over the Province, but in a mild form, which did not cause much inconvenience. Sporadic cases of anthrax were reported from several districts, but the mortality from this source was not great. There were 50 deaths from surra and 12 from anthrax among the ponies and transport animals of the Military Police. The immunity from cattle disease enjoyed by the Province was greater than in any previous year and was at least in part due to the continuous efforts of the Veterinary Department to induce the people to adopt rational methods of prevention and cure.

Pony and cattle breeding.

103. At the beginning of the year there were two Deli stallions stationed in the Tharrawaddy District and one Shan stallion, "Emperor," at Thamakan in the Southern Shan States. The two Deli stallions were sold by auction in October. They were reported to have covered 38 mares before the sale. From 57 mares covered in the previous year only three foals were born. The Shan pony stallion

"Emperor" was reported to be a failure. Two foals born to him in the previous year died and no mares were taken to him in the last six months of the year of report. Proposals by the Local Government for a new pony-breeding establishment, designed for the improvement and preservation of the indigenous type of pony, were sanctioned and will be brought into effect when funds are available. There are no Government bulls at stud in Burma. An Agricultural Show designed for the improvement of live-stock was held at Bhamo, but was hardly a success. The numbers exhibited were small and their quality as a rule poor.

Prices.

104. The price of unhusked rice in the Arakan Division fell on account of the decreased demand by the European milling firms in Akyab who milled very little rice, but was still above normal. In the Tharrawaddy and Prome Districts the price was above normal but in Pegu and Hanthawaddy it fell below the normal rate. In the Irrawaddy Division normal rates were obtained in Ma-ubin, Pyapôn and Myaungmya but not in Bassein and Henzada. It is reported that millers have combined in order to keep down prices. In the Tenasserim Division prices, save in the Thatôn District, were generally above normal. Everywhere large quantities of grain were still held back at the close of the year in hope of better prices. In Upper Burma as a whole the price varied but little from the normal except in Minbu and Magwe where it was higher in spite of an unusually good harvest. The district prices of wheat varied from Rs. 2-4-0 to Rs. 4-8-0 per basket. The prices were in all cases above the normal. Prices are to a great extent determined, not by the local production, but by the local demand and by importations from outside the Province. The price of millet did not vary greatly from the normal except in Shwebo, Sagu, Ye-u and Mahlaing. Even where prices were higher than normal, they were much lower than last year. The price of maize was everywhere above the normal except in Ma-ubin where it was normal, and in Shwedaung and Meiktila, where it was below normal. The rates for gram were everywhere above the average, the excess being most pronounced in the dry zone. The price of sessamum in Lower Burma was normal or above it except in Henzada or Shwedaung where the deficiency is explained by a diminished demand. In Upper Burma prices did not vary greatly from the normal except in the Magwe Division and one or two other markets like Mahlaing and Myittha. The price of groundnuts was generally normal, but fell in one or two districts where the crop had become established and the demand for seeds at high prices slackened. The price of tobacco, though generally normal, was fifty per cent. more in Moulmein and Sandoway as the result of short crops in these places. Cotton was dearer than the normal in Lower Burma but fetched only normal prices in the principal cotton-growing districts. The price of chillies was everywhere above the normal on account of the diminution of the area under this crop.

Agricultural loans.

105. The amount of agricultural loans outstanding at the beginning of the year was Rs. 10,01,312 or 34 per cent. more than the amount outstanding at the beginning of the previous year. The increase was the result of the unfavourable season of 1907-08 in Upper Burma. The sum of Rs. 10,32,620 was advanced during the year, of which eight lakhs were advanced in Upper Burma. The total sum advanced in the previous year was Rs. 9,73,968, of which only five lakhs were taken in Upper Burma. The amount collected during the year was Rs. 11,22,526 as compared with Rs. 7,16,664 in the previous year. The only remissions made were in the Ma-ubin District and amounted to Rs. 4,171. The total amount the collection of which was suspended was Rs. 1,67,870. In Hanthawaddy the sum of Rs. 73,713 was suspended because it was considered that repayment of advances made in previous years on lands where crops had been destroyed by floods would press hardly on the cultivators. In other districts suspensions were required because cultivators had not recovered from the effects of two preceding bad seasons. The amount overdue at the end of the year was Rs. 1,23,414 as compared with Rs. 1,43,135 at the end of the previous year. The amount of interest collected during the year was Rs. 83,367 as against Rs. 68,572. The amount suspended was Rs. 3,596 and overdue at the close of

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

the year Rs. 8,675. Only Rs. 13,675 were disbursed under the Land Improvement Loans Act during the year. There were no suspensions or remissions and the repayments due were collected without difficulty. The loans were made partly for small irrigation works and partly for the construction of embankments for the protection of crops from salt water.

Co-operative Credit Societies.

106. The movement towards the formation of Co-operative Credit Societies shewed unabated progress. The number of Societies in existence on the 30th June 1909 was 174 as compared with 81 on the 30th June 1908. The number of members increased in the same period from 3,085 to 5,356 and the capital from 1·81 to 4·92 lakhs of rupees. At the end of May 1909 the first Bank for the financing of Rural Societies was formed at Pakôkku and began operations with a paid-up capital of Rs. 3,920 and fixed deposits amounting to Rs. 10,180, the whole of which was furnished by Burmans. Large as was the increase in the number of Societies during the year the number of applications which could not be dealt with was even larger, and the question how to deal with expansion is still under consideration. The older Societies of the Schultze pattern are being gradually wound up and replaced by others of the Raiffeisen and Luzzatti types, which have been proved to be more suitable. The working of all was smooth and successful. Litigation was almost entirely avoided, repayments of loans and interest were very regular and only one case of dishonesty in management came to light. The movement has now aroused considerable interest in Upper Burma and the Delta and has been discussed in the vernacular press in both places. There has been no difficulty in obtaining funds, more being offered than could be made use of. The Bank of Rangoon has undertaken to finance Societies in Lower Burma and except in one district whose circumstances were exceptional, advances of Government money have ceased to be necessary, and a sum of over Rs. 11,000 received from that source was repaid. The stage at which the existence of the Societies can be said to have any very marked effect on the condition of the people has hardly yet been reached. But that individual Societies can be worked with success has been proved.

Protection from floods.

107. Embankments along the western bank of the Irrawaddy river in the Henzada and Ma-ubin Districts, around the Ma-ubin and Thôngwa Islands in the latter district, and on the banks on the Sittang river in the Pegu District, have been constructed and are maintained by the Public Works Department. Capital accounts have been opened for the Irrawaddy and the Thôngwa Island embankments; for the others only revenue accounts are kept. The capital expenditure during the year was Rs. 3,82,633 the whole of which was devoted to the Henzada section of the Irrawaddy embankments. The total capital expenditure on those works for which capital accounts are kept amounted at the close of the year to Rs. 38·97 lakhs. The banks of the Henzada and Ngawun branches were raised and strengthened and at the close of the year the work, which was begun in 1907-08, was nearly completed. The area protected by the embankments was 631,191 acres, an increase of 11,431 acres over the area protected in the previous year. The receipts, which consist of the land revenue collected in the protected area, were 18·85 lakhs of rupees as compared with 18·64 lakhs in the previous year, but working expenses fell from 4·82 to 3·88 lakhs. The aggregate net revenue was Rs. 14·97 lakhs or 1·15 lakhs in excess of that of the previous year. On those works for which capital accounts are kept the net receipts amounted to 26·65 per cent. of the capital.

Area irrigated.

108. The number of Government canals remained the same as in the previous year, but the area irrigated from them increased by 20 per cent. to 417,613 acres. Of the increase the development of the Shwebo Canal system accounted for over 50,000 acres. The number of private canals increased by 107 and the area irrigated rose from 177,004 acres to 249,264 acres. This result was principally due to the excellent rainfall, which filled the hill streams in several districts and enabled them to be used in the irrigation of the rice-fields in the valleys. The area irrigated from Government and private tanks was this year shewn separately

for the first time, that under the former being 73,779 acres and under the latter 84,012 acres, a total of 157,791 acres as compared with 105,683 acres in 1907-08. A decrease of 9,241 acres in the area irrigated from this source in Yamèthin was attributed to the breach of one tank and to insufficient rainfall; in Meiktila and Myingyan a good rainfall accounted for increases of 57,348 and 5,766 acres respectively. The number of wells increased by 6,720 and the number in use by 2,180, but the area irrigated decreased by 316 acres. Various explanations were given such as the general decrease in the area under betel-vine, the lowness of the Irrawaddy and improved irrigation from other sources. The area irrigated from other sources decreased from 208,374 to 151,515 acres principally on account of the failure of the Irrawaddy to fill up depressions along its banks. The total irrigated area was 985,187 acres out of 1,390,427 acres irrigable as against 848,620 acres irrigated out of 1,240,377 acres irrigable in the previous year. The total area irrigated comprised about 7 per cent. of the total cropped area and about half of it was served by works controlled by Government.

Weather and Crops.

109. The seasons of 1908-09 were on the whole exceedingly favourable to agriculture, and the year in the dry zone afforded a pleasing contrast to that which preceded it. Throughout the greater part of the Province the rainfall was sufficient and evenly distributed. The generally favourable season was, however, somewhat marred by a partial drought from the latter half of June to the middle of August. The effects of this were felt in all the districts of the Meiktila Division and in the Mandalay District, in the latter of which the unirrigated rice crop was a failure. The Irrawaddy and Chindwin rivers failed to rise to their usual height, which diminished the outturn of island crops in Upper Burma; but on the other hand saved the low-lying tracts in the Delta from floods. There was also an untimely fall of rain in November which was general throughout the Province and in the Arakan Division culminated in a destructive cyclone which seriously reduced the yield of the rice crop. In the other Divisions of Lower Burma rice threshed out lighter than had been anticipated on account of these rains. In Upper Burma some damage was done to the dry crops such as cotton, sessamum and groundnuts, but on the whole the effect of the late rains was there beneficial. In the greater part of the Magwe Division the year is said to have been the best since the establishment of British rule. In Lower Burma the damage done by floods was, in comparison with most years, extremely small. Character of the Seasons.

110. The occupied area of 1908-09 was 16,863,150 acres, an increase of 454,742 acres or $2\frac{3}{4}$ per cent. over the figures of the previous year. The figures, however, are rather misleading, an increase of 216,007 acres in Pakôkku District being ascribed principally to improved statistics. The same reason was given for an apparent decrease of 64,852 acres in the Upper Chindwin District. In Pakôkku the progress of the settlement probably led to greater accuracy in the statistics. The increase in the area in Upper Burma generally was a result of the favourable rainfall, which induced cultivators to take up more land. In the Bassein, Henzada, Myaungmya and Toungoo Districts large areas were brought under cultivation for the first time. In Tharrawaddy, Ma-ubin, Pyapôn and Thatôn the increase over last year's figures was partly due to greater accuracy of statistics owing to the extension of the area under survey. The fallow area decreased from 3,663,838 acres to 3,335,503 acres, of which only 543,086 acres were in Lower Burma. Large decreases were reported from the Hanthawaddy, Minbu, Shwebo, Lower Chindwin and Meiktila Districts, which were all attributed to the favourable character of the season. The area on which crops failed to mature decreased from 1,631,067 acres in 1907-08 to 698,600 acres, another result of a good year. Area under cultivation.

111. The total cropped area was 13,527,647 acres as compared with 12,742,570 acres in the previous year, an increase of approximately 6 per cent. Including Cropped area.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

the twice-cropped areas the figures were 13,881,892 acres in 1908-09 and 13,068,726 acres in 1907-08. There was an increase in every district except Rangoon Town, where the agricultural area is naturally diminishing as the population increases, and the Upper Chindwin, where last year's figures are said to be incorrect. The increases were greatest in the following districts: Hanthawaddy, 31,494 acres; Thatôn, 47,391 acres; Pakôkku, 218,057 acres; Shwebo, 81,210 acres; Lower Chindwin, 54,834 acres; and Meiktila, 44,0.5 acres.

Area under various crops.

112. The crop most largely cultivated in Burma is rice, the area under which was returned as nearly $9\frac{3}{4}$ million acres. Jowar and sessamum accounted for rather over a million acres each, groundnut for nearly a quarter of a million and cotton over a fifth of a million acres. The area under irrigated rice increased from 834,587 acres in 1907-08 to 975,364 acres, nearly the whole of which was ascribed to extension of cultivation. The area under unirrigated rice increased from 8,496,341 acres to 8,746,180 acres. Wheat was grown on 35,641 acres as compared with 21,088 acres devoted to the crop in 1907-08. Jowar increased from 903,654 acres to 1,122,162 acres, the greater part of the increase taking place in the Pakôkku and Lower Chindwin Districts. Owing to the lowness of the Irrawaddy and Chindwin rivers jowar was cultivated where gram and tobacco would usually be sown. The area under *bajra* (*lu*) shewed a decrease from 97,380 acres to 84,867 acres, principally in the Myingyan District, where groundnut is ousting other crops. The area under maize and gram also increased. The area under other food grains, including pulses, decreased by 8,485 acres. The growth of the area under groundnut continued. In 1906-07 it was 78,743 acres, in 1907-08 145,215 acres and in the year of report 248,477 acres, an increase of more than 200 per cent. in two years. Sessamum increased from 988,323 acres to 1,038,723 acres, an increase of 95,000 acres in the Pakôkku District being due to good rains, while a decrease of 46,000 acres in the Myingyan District was due to the substitution of groundnut. The cotton area increased from 206,233 to 211,121 acres. The increase in the area under rubber cultivation continued; the figures are now 11,849 acres as compared with 8,987 acres in 1907-08, an increase of nearly 32 per cent. There are now eleven districts in which rubber is cultivated. The total outturn of the winter rice crop in the fifteen principal rice producing districts of Lower Burma was estimated at over $66\frac{3}{4}$ million cwts. in the forecast prepared in February 1909, an increase of 5·84 per cent. over the figures of the previous year. The average outturn per acre was estimated at 98 per cent. of the normal compared with 95 per cent. The Provincial estimate of the surplus available for export in 1909 was 2,560,000 tons of cargo rice. In 1908 the surplus was estimated at 2,486,000 tons, but the actuals probably amounted to only 2,430,000 tons. The exports up to the 30th June 1909 amounted to 2,051,874 tons of cargo rice against 1,935,926 tons for the corresponding period of 1908. The cotton crop was estimated at 37·48 per cent. better than in 1907-08 and the total outturn as 39,864 bales of 400 lbs. each, an excess of 10,869 bales over the figures of 1907-08. The groundnut crop was estimated at 107,000 tons, being 52 per cent. more than the quantity of the previous year. The outturn of all other crops was good.

Experimental cultivation.

113. The only agricultural station worked during the year was at Mandalay. Financial pressure did not permit of operations at the Hmawbi station, the land at which was leased to cultivators. The project of a farm at Meiktila has been given up for the present. The equipment of the Mandalay station with roads, buildings and fences was pushed on, but was not quite complete at the end of the year. Although the season was by no means ideal for the work owing to the irregular distribution of the rainfall, several series of experiments with paddy, jute, wheat and cotton were initiated. Experiments in the terraced cultivation of wheat and oats were carried out in the Sinlumkaba Garden and at certain villages under the supervision of selected headmen with fairly successful results, and arrangements were made for more thorough and extensive experiments next season. In the Chin Hills attempts were made by the Superintendent to extend the cultivation of potatoes and onions, and seeds were distributed by the Assistant Superintendent,

Haka. The experiment, however, met with but little success. The moisture-resisting varieties of Moulmein rice, which were introduced into the Akyab District in the previous year, have become very popular, and the people are anxious to retain the seed. The exceptionally careless methods of cultivation of the Arakanese have unfortunately caused a slight deterioration in the quality of the grain. A few boat-loads taken to the mills met with a favourable reception and it may soon be possible to obtain cargoes of the milled grain suitable for export. The variety of rice known as *tadaungbo* having succeeded on lands in the Ma-ubin District too deeply flooded to grow ordinary rice was tried in the riverine tract of the Ruby Mines District and in Thatôn and the Upper Chindwin. The experiments were not very successful owing to too late sowing, but they are being continued. The efforts of the Superintendent in the Chin Hills resulted in a very large extension of wheat cultivation, the crop being estimated at 200,000 lbs. as compared with 75,000 lbs. in the previous year. The Deputy Director of Agriculture visited the Hills and made several recommendations with a view to establish wheat cultivation on a sound basis and to prevent the exhaustion of the soil by continuous cropping. No great advance has been made in the cultivation of wheat in the plains despite some moderately successful experiments in the Lower Chindwin District. A survey of the varieties of wheat in the Province is in progress. The popularity of groundnuts as a crop in the dry zone districts was fully maintained and the area under it nearly doubled. Experiments with exotics and a study of all available varieties were conducted at Mandalay in order to obtain, if possible, a variety immune from 'tikka' disease and to ascertain the relative yields of oil of different sorts. The general unsuitability of the Lower Burma soil and climate for cotton was again indicated by the failure of various kinds of American and Egyptian cottons supplied for experiment on a small scale at Prome and near Rangoon. Before attempting to introduce exotics in Upper Burma, efforts are being directed towards a thorough examination of the varieties now grown with a view to ascertaining the possibilities of improvement by utilising the best of them. A variety found in the Shan States obtained a very favourable report from a Bombay firm and is being tried at the Mandalay Agricultural Station. Virginia and Havana tobacco seeds were distributed for experimental cultivation in twenty districts, but the results were generally disappointing. Many failures were caused by the abnormal rains in November and even when the crop succeeded difficulty was experienced in finding a market for it. Sunn hemp was tried in a few districts in Lower Burma with varying results. The cultivation of jute has aroused considerable interest and experiments with it are in progress at Mandalay. Arabian coffee seeds were distributed in ten districts but few successes were reported. Experiments with tea also failed because the seed obtained from Bengal was bad.

Horticulture.

Agri-Horticultural Societies.

114. There are two horticultural Societies in the Province, the Agri-Horticultural Society of Burma with headquarters in Rangoon and the Tenasserim Agri-Horticultural Society in Moulmein. The latter has no land on which to make experiments, and issued no report for the year 1908. The Agri-Horticultural Society of Burma expended Rs. 4,969 during the year, making a total of Rs. 1,35,469 on permanent improvements to its garden. The credit balance of the Society has now been reduced to under Rs. 9,000 and expenditure on the same scale will be impossible in the future. A Flower and Vegetable Show was held in February 1908 for the first time since 1887, and the results were fairly good. A sum of Rs. 685-10 was distributed in prizes. The planting of various fruit and ornamental trees and the arrangement of plants according to the recommendations of members and others was carried out and several new varieties of plants were obtained from the Straits and India. The Municipality has now begun to supply water through the pipes laid down throughout the grounds, which will be of great benefit to the garden.

CHAP. IV.—PRODUCTION AND DISTRIBUTION. Experimental gardens.

115. The experimental gardens under the management of the Agricultural Department during the year were situated at Sinlumkaba in the Bhamo District; Myitkyina; Falam, Tiddim and Haka in the Chin Hills; and Taunggyi in the Southern Shan States. The Katha garden was taken over by the Department in March 1908, but after six months' experience it was found impossible to carry it on. Properly trained men could not be obtained as gardeners, the site was unsuitable, labour expensive, and the hopeless condition into which the fruit trees had been allowed to drift rendered it imperative for success to obtain an entirely new stock, at an expense which the utility of the garden could not warrant. In consequence the garden was abandoned after a season spent in trying to get it into order. The Sinlumkaba garden was utilised for the purpose of conducting those experiments with cereals which have been noted in the paragraph of this Report dealing with experimental cultivation and for the instruction of Kachins in Agriculture and Horticulture. Careful attention was paid to the fruit trees in the garden and some of the apples and pears fruited for the first time. The stocking of the Myitkyina garden with various varieties of peaches and plums has been proceeded with. Lichees did well and peaches and loquats are now firmly established. Part of the garden was used for the growth of shade trees, 150 of which were distributed throughout the district for planting by the roadsides. In the Chin Hills the site of the garden at Tiddim was changed with good results. The cultivation of fruit trees was only partially successful. Peach trees bear well at Falam, but the fruit is either blown off the trees by high winds or rots before it has had time to ripen. Although the supply of peaches at Tiddim is plentiful, it is of very inferior quality. The cherry and nectarine trees in the Hills seldom bear any fruit, though they look flourishing. Apple trees do well at Haka and so do plums at Falam; but at Tiddim both produce small fruit. The Assistant Superintendent at Tiddim has begun experiments with cuttings from the apple, plum and apricot trees, and some of them have rooted and are doing well. An unfortunate attack of grubs did much damage to the strawberries in the Falam garden. In the garden at Taunggyi much damage was caused to experimental crops by attacks of insects which were unusually prevalent owing to the early arrival of the rains. Experiments with local and Pindaya pinapples gave promise of success. Of the fruit trees the tree tomatoes were the most successful. As in the Chin Hills cherries look healthy, but shew a tendency to abstain from fruiting, and though peaches fruited well they did not ripen properly and were of inferior quality. The climate does not seem to suit imported apples, but some of the pear trees were heavily laden. Want of water in the dry weather is against the success of the orange trees and they bear small and inferior fruit; and the plum trees also produced only a few sour and indifferent plums. Some improvement in fruit culture might be effected by root pruning, which has not been attended to for several years though branch pruning has been regularly done.

Forests.

Forest Reserves.

116. The area notified as reserved forests during the year was 770 square miles, 29 square miles were disafforested, and the result of survey corrections was a decrease in the area reserved of 18 square miles. The total area of reserved forests was increased by 723 square miles and stood at the end of the year at 23,581 square miles. Of a total area of 5,171 square miles undergoing settlement only 777 square miles were taken in hand during the year. The figures, however, include an area of 2,464 square miles in the Southern Circle, chiefly in the Southern Shan States and Minbu Divisions for which the settlement proceedings were completed in previous years but on which final orders had not yet been passed. In the Arakan Division Settlement enquiries were completed for an area of 1,120 square miles and proceedings were either completed or in course of completion in respect of 235 square miles in the Northern and of 220 square miles in the Southern Circle. New proposals for the reservation of 560 square miles were submitted during the year. The Local Government deferred passing orders on some of the reserves which were proposed for climatic reasons in

the Minbu Forest Division until a further investigation should be made by the Conservator into the necessity for reservation which involved the payment of heavy compensation to cultivators already settled within the area. The total expenditure on settlements inclusive of the pay and allowances of Forest Settlement Officers was Rs. 31,849 as compared with Rs. 21,855 in the previous year. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

117. The length of boundary lines of reserved forests demarcated for the first time was 1,037 miles as compared with 946 miles in 1907-08, and in addition a considerable stretch of boundary previously demarcated was repaired. Two hundred and sixty-four miles of boundary remained to be demarcated at the close of the year as compared with 726 miles at the close of the previous year. A special survey required for working-plan purposes of the Mosit Reserve, 106 square miles, was carried out in the Northern Circle by the Survey of India Department on the scale 2 inches = 1 mile, and Rs. 3,995 part of the cost was borne by the Forest Department. The only other regular survey of reserved forests during the year was of 191 square miles of reserves in the Northern Circle which was included in the course of the topographical survey of Burma by the Survey of India Department. The area of reserves remaining to be topographically surveyed increased from 9,401 to 9,889 square miles during the year. The total expenditure on surveys was Rs. 7,800, of which Rs. 3,180 were spent by local Forest Officers on boundary surveys for the purpose of demarcation and reservation. Demarcation and Surveys.

118. Working-plans for a total area of 1,344 square miles of reserved forests in the Tenasserim, Northern and Southern Circles were sanctioned during the year and others for a total area of 1,887 square miles were in various stages of completion at its close. Three parties, one in the Pegu and two in the Northern Circle, were employed in the open season in the preparation of working-plans for various reserves, and completed the field work for 477 square miles. Other plans were submitted by Divisional Forest Officers. Though the area of reserved forests for which working-plans have not yet been prepared is very great, in the greater part of it girdling schemes for the removal of all mature teak trees liable to deterioration have been prepared and sanctioned by the Chief Conservator of Forests. The majority of the teak bearing forests are now being managed under working-plans or girdling schemes. The provisions of existing working-plans were generally worked up to as far as the girdling of trees was concerned but owing to the insufficiency of the establishment and the difficulty of procuring labour the prescribed programme of works of improvement could not be carried out except in the Northern Circle where the area under working-plans is much smaller than in other Circles. Working-plans.

119. The expenditure on new roads, bridges and paths was Rs. 1,11,685 as compared with Rs. 93,864 in the previous year. This amount included nearly Rs. 4,000 spent on improving a channel in the Salween river and Rs. 1,500 contributed to the construction of a district road. One hundred and seventeen miles of cart-road were constructed, chiefly in the Pegu and Northern Circles, and 564 miles of bridle and other paths, but, principally owing to restriction of funds, the programme of road-making was not fully carried out. In the Tenasserim and Southern Circles considerable progress was made in the joint construction of roads and bridges by the District authorities and the Forest Department. The amount spent on the maintenance of existing roads and paths was Rs. 22,706 as compared with Rs. 20,425 in 1907-08. The amount expended on new buildings was Rs. 80,718 as compared with Rs. 81,650 in the previous year and repairs to existing buildings cost Rs. 50,039. A number of buildings in the Pegu Circle could not be erected as it was impossible to get contractors to undertake the work. Some money was spent in well-sinking in the Tharrawaddy and Zigôn Forest Divisions whence it was reported that the water-supply is growing worse year by year and the provision of wells has become necessary. Communications and buildings.

CHAP. IV.—PRODUCTION AND DISTRIBUTION. Forest offences.

120. The number of reported offences against the Forest Act and Rules which was 3,376 in 1907-08 increased to 3,735 in 1908-09. The number of cases disposed of by the Courts was 1,081 involving 2,058 persons as compared with 894 cases involving 1,843 persons in the previous year. Convictions were obtained in 909 cases or 84 per cent., being one per cent. less than in 1907-08. The number of cases compounded was 2,427 as against 2,203. In the Pegu Circle a Deputy Ranger was prosecuted for illicitly marking 310 logs with a revenue paid hammer mark without assessing them to duty and four traders were prosecuted with him for abetment of the offence. The royalty due on the timber seized amounted to Rs. 4,595. Two cases of the use of a forged revenue paid hammer mark were detected in the Prome Division. In the great majority of the cases the offence was the illicit felling of timber. The increase of cultivation and the exhaustion of the supply of marketable timber outside the reserved forests in many districts in Lower Burma furnish the motives for the commission of this offence which again is facilitated by the numerous waterways which intersect the country and provide a ready means of removing the timber after it has been felled.

Protection of forests.

121. Fire protection was attempted in an area of 7,457 square miles as against 7,526 square miles in the previous year and was successful over 7,180 square miles or 96·29 per cent. of the area in which operations were conducted. In the Pegu Circle one reserve was fired by villagers in order to destroy the thick jungle in which thieves were in the habit of hiding stolen cattle, and other fires were started by cattle thieves in order to obliterate their tracks. In the Tenasserim Circle a fire which did extensive damage was ascribed to elephant thieves who had a similar object in view. The total cost of fire protection was Rs. 2,57,080 or about Rs. 34½ per square mile of the area in which protection was attempted and Rs. 56 per square mile of the area actually protected. Of the total area of reserved forests in Burma only 758 square miles were open to animals for grazing purposes. In this respect also difficulty was experienced in excluding from the forests of the Pegu Circle, where the population is more dense, animals whose owners had no rights of grazing therein. The amount received as grazing fees was Rs. 8,194 as compared with Rs. 3,353 in 1907-08. The increase occurred principally in the Mandalay Division where rules for the regulation of grazing in the reserves round Maymyo were enforced with greater strictness than before. The chief natural causes of injury to forests in Burma are climbers, epiphytic fici, fungi and insects. Previously adopted methods of dealing with these were continued. Climbers were cut wherever improvement fellings were undertaken and in all areas where girdling was carried out. Ficus does more damage to teak than to any other species and in order to prevent its spread ficus-bound trees were cleared out at every opportunity. The most injurious insect is the bee-hole borer (*Duomitus ceramicus*) whose presence was reported from three of the four Forest Circles in the Province.

Plantations and experimental cultivation.

122. The statistics shew the area of regular plantations as 5,114 acres as compared with 5,234 acres in the previous year but the reduction is only apparent, being the result of a more accurate computation of areas in the plantations in the Tharrawaddy Division. The formation of teak plantations on hill clearings was continued, an area of 707 acres being added to that previously in existence, while 301 acres on which no success had been obtained were excluded. A scheme for the improved management of the regular plantations in the Tharrawaddy Division was approved and put into force during the year as were also similar schemes for the treatment of hill clearing plantations in the Tenasserim Circle. Experimental sowings of mangroves and similar trees were carried out in the fuel reserves in the Rangoon Division. No satisfactory offer for the purchase of the Mergui rubber plantation was received and it was decided that it should continue to be managed by the Forest Department. Exclusive of establishment charges the amount spent on it was Rs. 35,159 while receipts amounted to Rs. 5,937, of which Rs. 5,648 represented the net proceeds of the sale of 2,414 lbs. of rubber. Experiments with a view to introducing the tree known as Andamans *padauk* (*Pterocarpus dalbergioides*) did not prove very successful. A consignment of seeds of *Catalpa*

speciosa from America germinated freely, but the plants are not growing as vigorously as might be expected. The cultivation of camphor (*Cinnamomum camphora*) was continued in the Northern and Southern Circles.

Extraction and sale of timber.

123. The number of trees girdled rose from 101,000 in 1907-08 to 122,000 in 1908-09. The total quantity of timber extracted was 29 million cubic feet as compared with 26½ million cubic feet in the previous year. The quantity of teak extracted shewed an increase of over two million cubic feet. Less was worked by departmental agency in pursuance of the policy of restricting the extraction of teak by Government but, principally as the result of a favourable floating season, forest lessees in the Northern and Southern Circles obtained largely increased outturns. In the Pegu and Tenasserim Circles, while Government ceased operations in many of the forests the lessees to whom they were granted were unable within the year to do more than preparatory work, and the result was a temporary reduction in the output of teak from these Circles. The production of reserved timbers other than teak and of unreserved timbers also increased. The teak market was weak throughout the year. Prices in the European markets remained stationary, but the dullness in the shipbuilding and other industries in which teak is most largely used resulted in a very limited demand. Exports from Burma were little more than half the average of the five preceding years. Indian markets with the exception of Calcutta were fairly satisfactory and prices for the better qualities were higher in consequence of the scarcity of supplies. Timber other than teak was exported to Europe in fairly large quantities, but is hardly yet able to compete with cheaper American and European timbers.

Miscellaneous.

124. The tannin factory at Rangoon remained closed throughout the year but arrangements have been made for re-opening it in order that the Imperial Forest Chemist may conduct some experiments for the production of decolourised mangrove extracts on a commercial scale. The most interesting phenomenon of recent years in the forests of the Province has been the flowering of the bamboo, which has been proceeding southward and is now reported to have reached the Henzada Division. Its effect in stimulating the natural reproduction of teak has been closely watched, and though opinions are by no means uniform it is clear that under certain conditions and in some forests a great impetus to natural reproduction has been given. Observations however are not yet complete and any attempt to formulate definite conclusions would be premature. In the same way it will probably be some years before the experiments which are now being made in the use of fire to provoke teak regeneration can lead to any results.

Mines and Quarries.

Grant of new concessions.

125. The number of applications during the year ending the 31st March 1909 for prospecting licenses was 69, for mining leases 15, for exploring licenses 7, and for dredging leases two, and one application for the renewal of an exploring and three applications for the renewal of prospecting licenses were received. Eleven prospecting licenses and three exploring licenses were renewed during the same period. Forty-eight new prospecting licenses, fourteen exploring licenses, and three mining leases were issued. Of a total number of 134 applications dealt with during the year in 68 or just over 50 per cent. the object was petroleum or mineral oil. Other minerals sought for were gold, silver, lead, tin and antimony. A mining lease of 640 acres in the Pakôkku District was granted to Messrs. Finlay, Fleming and Co., as agents for the Burma Oil Company, Limited. The mineral to be worked on the area is petroleum. A gold-mining lease over an area of nine square miles near Myitsôn in the Ruby Mines District was issued to the Shweli Gold Dredging and Mining Syndicate on the 1st November 1908. The Syndicate suspended work on the concession in August 1908 when the manager proceeded to England to raise capital and nothing further was done during the year of report. A lease to mine for silver and lead in a small area in the Yawnghwe State in the Southern Shan States was granted to two Shans

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

for five years. The exploring licenses were principally for silver, lead and tin in the Thatôn, Salween, Tavoy and Mergui Districts.

Petroleum.

126. The yield of petroleum, which in 1907-08 was 149 million gallons valued at 90 lakhs of rupees, increased during the year of report to 173 million gallons valued at 103·69 lakhs. The increase took place in the Yenangyaung oil-fields in the Magwe District, the yield from which rose from 97 to 124 millions of gallons. The quantity obtained from the Myingyan District remained practically stationary, while there was a falling off of over two million gallons in the production from the Yenangyat field in the Pakôkku District. The southern blocks of the latter have become exhausted, but prospecting licenses were taken out by several Companies in other parts of the district. In the Magwe District four new oil companies were floated, the Twinza Oil Company, the United Twinza Oil Company, the Aungban Oil Company, and the Indo-Burma Petroleum Company. The Burma Oil Company extracted a much larger quantity of oil than in the previous year, while the Rangoon Oil Company more than doubled their output. The pipe-line of the Burma Oil Company was completed and conveyed large quantities of oil from the mining fields to their refineries near Rangoon. Large storage tanks were built by several Companies in the neighbourhood of Yenangyaung. The revenue from the oil industry increased from 10·96 lakhs in 1907-08 to 17·77 lakhs in the year of report. The exploitation of the oil-fields of Yenangyaung is now proceeding with a rapidity previously unknown. Prospecting and exploring for oil went on throughout the year in the Thayetmyo and Minbu Districts but without any results or even any favourable indications being observed.

Gold.

127. Three dredgers belonging to the Burma Gold Dredging Company, Limited, were at work in the Irrawaddy above Myitkyina and one in the 'Nmaikha during the year. The fourth dredger of a larger and more powerful type than any of her predecessors began work in May 1908 and a small dredger, to be used for prospecting purposes only, is at present under construction. The quantity of gold won was 7,950 ounces valued at Rs. 4,59,000 as compared with 3,837 ounces worth Rs. 2,23,784 in the previous year. The Company paid a dividend of $2\frac{1}{2}$ per cent. during the year.

Rubies.

128. The only place in the Province where mining for rubies was carried on was in the country round Mogôk in the Ruby Mines District. The industry in the Myitkyina District came to a standstill and no revenue was derived thence. The principal mines continued to be worked by the Burma Ruby Mines Company. The European market for rubies suddenly ceased at the time of the financial crisis in the United States in October 1907 and till the end of the year of report there was little or no revival of demand. The output of the Company was accordingly restricted to the narrowest limits and a corresponding slackening of activity took place among the Native miners who work under license from the Company. The only statistics of output available are those furnished by the Ruby Mines Company. The number of trucks of ruby earth washed was 1,122,114, from which were obtained 165,894 carats of rubies valued at Rs. 7,02,335, 16,390 carats of sapphires valued at Rs. 8,898 and 28,910 carats of spinels valued at Rs. 7,579. The total value of the stones obtained was Rs. 7,18,812. In the previous year the output of rubies, sapphires and spinels was valued at Rs. 17,31,977. The income from royalties, which was Rs. 2,97,740 in 1907-08, fell to Rs. 1,20,786 in 1908-09. The payment of rent for the year was postponed by the Secretary of State. The method of mining remained unchanged. The Company bought up the central part of Mogôk Town in order to extend their working. The main drainage tunnel, which had been in process of construction for several years, was completed in July 1908 and has proved of great value in obviating all danger from sudden floods and relieving the Company of much expense in pumping.

Other minerals.

129. The quantity of jade and jadeite extracted in the Myitkyina District during the year was 3,367 cwts. valued at Rs. 3,34,989 as compared with 3,590

cwts. valued at Rs. 2,84,973 in 1907-08. The breakdown of a steam-pump at the Tawmaw mines and disputes among the mine-owners restricted the output. The steam-pump has now broken down for two years in succession and arrangements are being made for the engagement of an engineer competent to execute minor repairs on the spot to tend it. A new mine was discovered during the year from which some stone of good quality was extracted. In the unadministered territory to the north of the Myitkyina District are situated amber mines from which 49 cwts. of amber valued at Rs. 5,465 were imported as compared with 44 cwts. valued at Rs. 5,770 in the previous year. The tourmaline mining industry in the Ruby Mines District and in the Shan State of Mông Mit was practically dormant. Stones valued at over four thousand rupees were extracted in the valley of the Nampai stream in Hsipaw State. In the Yamèthin District the Mount Pima Mining Company completed the railway to their mine and erected a mill at Pyawbwè for crushing ore. The Burma Development Syndicate continued work on their concession in the Maliwun Township in Mergui District, by sinking a shaft 57 feet deep and driving an adit 180 feet long through a hill and have begun to produce tin. The quantity of tin raised in the Mergui District was 94 tons valued at Rs. 1,63,497 as compared with 75 tons valued at Rs. 1,72,830 in 1907-08. The increase in the quantity produced was due to the sufficiency of the rainfall during the working season and the absence of sickness among the miners, while the fall in the tin market in Penang, to which the whole of the tin produced was exported, was responsible for the decline in value. No coal mines were worked during the year.

Quarry stones.

130. The extraction of clay, laterite and limestone in large quantities for use in brick-making, road-making and repairing continued. The development of the quarries of gneissic granite in the Thatôn District which began in the previous year was pushed on with vigour, the quantity extracted increasing from 16,000 to 270,500 tons. The stone was extensively used by the Burma Railways Company and for the purposes of the Town Lands Reclamation Works in Rangoon. An examination of the quarries by the Geological Department shewed that the granite exists in large quantities and production on a still more extended scale may be expected in the immediate future. The Rangoon Port Commissioners continued their operations for the quarrying of stone for the river works in Kalagauk Island off the coast of the Amherst District. Eighty workers found occupation in quarrying marble, to be used in the manufacture of images, in the Sagyin Hills in Mandalay District.

Manufactures.

Principal industries.

131. The numbers of persons supported by the various industries carried on in the Province are given in the Census Report of 1901. The figures given there are in all probability less than the actual numbers, and there has no doubt been a progressive increase since 1901. No marked change in the general industrial conditions is to be noted in the year of report. Rice-milling and saw-milling are the only industries in which Western methods and organisation have been adopted on a large scale and which have fallen completely under the domination of European firms. Other manufactures are carried on in the houses of the people and traditional methods persist with little modification. The village carpenter and blacksmith carry on their useful trades to supply the village wants as from time immemorial. The worker in silver and the wood-carver continue to produce satisfactory work. Cheroot-rolling still provides an easy and pleasant secondary occupation for the women of the household, and the silks of Amarapura and the lacquerwork of Pagan maintain the reputation of their past. Burma is still a Province essentially agricultural and the signs of the transition to the industrial stage are not yet apparent.

Factories.

132. The number of districts in which the Indian Factories Act was in force remained at 14, the same number as in the previous year. There was no change in

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

the law relating to factories during the year, but at the instance of the Government of India, the opinions of public bodies and factory owners were taken on the legislation recommended by the Indian Factories Commission. The number of factories increased from 261 in 1907 to 279, and the number of factory operatives employed from 35,965 to 40,587. The increase in the number of factories included ten new rice mills, three foundries and two saw mills. Inspections were satisfactory on the whole, but four factories remained uninspected during the year. In the Hanthawaddy District, Subdivisional Officers were appointed Joint Inspectors in order to relieve the Deputy Commissioner. It is hoped that before long a whole-time Inspector may be appointed for Burma. The general sanitary condition of factories throughout the Province was reported to be satisfactory. In Rangoon Town mills owned by natives required improvement in the accommodation provided for coolies, in sanitation and in the drinking water-supply. The continuous presence of cholera in those quarters of the town in which factories are congregated was ascribed to the imperfections of their water-supply, the defective sanitary arrangements and the general lack of drainage. The Rangoon Municipal Committee were invited to make use of the powers vested in them by the Municipal Act in order to bring about an improvement in the sanitary condition of the coolie lines adjoining mills in Rangoon. The rate of wages remained the same as in 1907 and the conditions of the operatives compared favourably with that of outside labour. The number of women and children employed in factories in Burma was 889 and 271 as compared with 812 and 284 in 1907. Children were employed only in Rangoon and Hanthawaddy and their work was of a light and easy nature. The number of accidents increased from 183 in 1907 to 300 in 1908. Eleven accidents were fatal. Inquests were held in every case and the results shewed that in two or three cases inadequate fencing of machinery was the cause of the fatality, while in others it was the result of accident or carelessness. Prosecutions were instituted in all cases where criminal negligence had been displayed. The number of prosecutions under the Factories Act was two, the same as in 1907. One owner was fined for failing to register his factory and one for failure to carry out the orders of the Joint Inspector.

Trade.

Maritime Trade—Total value.

133. The expansion in the volume of trade, which was so marked a feature of the years 1906-07 and 1907-08, was not continued in the year of report. Excluding Government transactions the total value of imports and exports fell by 231·43 lakhs to 5,408·29 lakhs, a decrease of 4 per cent. The explanation must be sought in the general slackening of the activity of trade which took place all over the world during the same period. The decline was most marked in the foreign export trade and was accounted for by the diversion of rice to India to meet the scarcity prevailing there which was reflected in the increase in the value of the exports to Indian Coast Ports. In the foreign trade for the first time the value of the imports exceeded that of the exports by 21·85 lakhs. In the coasting trade the excess of exports over imports increased from 482·29 lakhs in 1907-08 to 891·94 lakhs. The coasting trade represented 51½ per cent. of the whole as compared with 48 per cent. in the previous year. The percentage of the trade which passed through Rangoon was 80·45, almost the same as in 1907-08; Moulmein and Akyab receded slightly, while Bassein shewed a distinct advance from 2·91 to 4·54 per cent. The share obtained by the minor ports of Tavoy, Mergui, Kyaukpyu, Sandoway and Victoria Point continued to be a negligible quantity.

Foreign Imports—Rangoon.

134. The aggregate value of the foreign imports into Rangoon was 1,292·79 lakhs as compared with 1,106·73 lakhs in 1907-08. There was an increase in all the groups into which imports are classified with the exception of Class IV, Chemicals, Drugs, Medicines and Narcotics, dyeing and tanning materials, and Class V, Oils. The total quantity of liquors imported declined by 5,000 gallons,

but the value was 2·79 lakhs more. The value of provisions imported, 83·04 lakhs, was the highest on record, being 8·80 lakhs more than in the previous year. The share of the principal countries participating in the trade was, Straits Settlements 38·68 lakhs, United Kingdom 26·58 lakhs, Germany 4·42 lakhs, Portugal 3·93 lakhs, Hongkong 2·62 lakhs, Holland 1·72 lakhs and France 1·35 lakhs. Imports of salt were 5,511 tons less than in the previous year. The feature of the year was the declining popularity of Liverpool salt, the imports of which fell off by 12,768 tons. It is being ousted from the market by cheaper salts from Aden and Salif (Asiatic Turkey). German salt by means of a reduction in price more than held its own, the imports increasing by 5,090 tons in the year. A similar measure failed to stimulate sales of Liverpool salt. Imports of refined sugar increased by 32,661 cwts. and 6·41 lakhs. Supplies of cane sugar from Java declined by 32,967 cwts. while Hongkong improved her position by 35,361 cwts. The quantity of beet sugar imported from Austria-Hungary shewed a remarkable improvement from 1,250 cwts. valued at ·13 lakh to 34,401 cwts. valued at 3·34 lakhs. Java continued to be the chief source of supply, contributing 78·66 per cent. of the total. The value of hardware and cutlery imported was 46·75 lakhs as compared with 34·90 lakhs in 1907-08, but the stocks in hand at the close of the year were very large. The value of metals imported fell from 152·17 lakhs to 138·86 lakhs, principally on account of the completion of the Burma Oil Company's pipe-line, which had accounted for heavy imports in the previous two years. The activity of the building trade accounted for an increased importation of iron beams, pillars, nails, screws, rivets, etc. The imports of steel fell owing to the cessation of the arrivals for the pipe-line. The total imports of machinery and millwork increased from 33·61 lakhs to 48·57 lakhs. Electrical and mining machinery was responsible for the greater part of the increase. There was a decrease in the value of railway carriages and locomotive engines imported owing to the completion of the Pegu-Martaban Railway, but an increase under the head of rails, sleepers and construction materials required for the doubling of existing lines. There was a slight fall from 22·59 to 21·46 lakhs in the value of drugs, medicines and narcotics imported. Cigarettes comprise 70 per cent. of the trade under this head. There was a decline in the amount and value of kerosene oil imported owing to the increasing use of electric light and the growing popularity of the native product. There was a remarkable increase in the total value of cotton goods imported from 276·68 lakhs to 349·39 lakhs, which is attributed to heavy speculative purchases in the home markets following on the fall in prices. Imports of raw silk surpassed all previous records owing to a brisk demand from Upper Burma. The total value rose from 17·52 to 28·74 lakhs. Heavy stocks remained on hand at the close of the year. Speculative purchases induced by the fall of prices in the home markets also accounted for an increase by 13·56 lakhs in the value of woollen goods imported.

Foreign Imports—Minor Ports.

135. A slight fall of 1·03 lakhs was recorded in the foreign import trade of the subordinate ports during the year. The decline in the trade of Akyab is accounted for by smaller importations of metals, machinery, cotton goods and matches, but provisions and salt advanced. The heavy fall in the trade of Bassein is due to the absence of importations of metals and machinery. Salt, however, improved and considerable supplies of railway plant were received. Smaller imports of betelnuts, provisions and sugar were responsible for the drop in the trade of Mergui. Increased imports of metals and provisions into Moulmein more than made up for the decline in machinery, betelnuts and sugar. Tavoy's advance was due to large importations of tea and matches. Victoria Point shewed a very satisfactory improvement, chiefly on account of the increased imports of metals, machinery, provisions and railway plant for the Burma Development Syndicate's Works at Maliwun.

Foreign Exports—Rangoon.

136. There was a remarkable decline in the value of the exports from Rangoon in 1908-09. Their aggregate value was 941·18 lakhs as compared with 1,413·08 lakhs in 1907-08 and an average value for the five years ending 1906-07 of

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

1,248·15 lakhs. The greater part of the decrease took place in exports of rice, which were valued at 665·30 lakhs as compared with 1,070·89 lakhs in the previous year. The outstanding features of the rice trade in 1908-09 were (1) the diversion of exports from foreign ports to meet the large demands from India, where, on account of scarcity, prices ruled high, (2) the lateness of the season, which, combined with a lower level of prices throughout Burma, resulted in supplies coming in more slowly and a decrease in the total quantity exported. Against a decline of 405·59 lakhs in the value of foreign exports may be offset an increase in the value of coasting exports by 198·09 lakhs. The net decline in the total value of rice exported from Rangoon was 207·50 lakhs as compared with the previous year. The decline in foreign exports affected almost all the countries participating in the trade. The greatest decrease was that of 2,094,807 cwts. in the exports to Germany. Good crops in Japan and Cochin-China led to a very large decline in the exports to Japan, Java, the Straits Settlements and other Eastern countries. From November 1908 to March 1909 no vessels cleared from Rangoon with rice for Japan as compared with 19 vessels in the same period of the previous year. The quantity of beans exported declined from 299,283 cwts. valued at 11·26 lakhs to 248,506 cwts. valued at 9·64 lakhs. The value of mineral oils exported to foreign countries declined from 22·19 lakhs to 20·13 lakhs, mainly owing to fewer shipments of benzine to Europe and of fuel oil for the Admiralty. The exports of kerosene oil remained negligible, but those of paraffin wax increased from 74,205 cwts. valued at 16·87 lakhs to 79,604 cwts. valued at 18·33 lakhs. The latter figures are the highest on record. Australasia and Japan were responsible for the increase, while there was a decline in the shipments to Germany, the United States of America and the Straits Settlements. In cotton there was a trifling decrease in the quantity exported to foreign countries and an increase in the value. The crop was a good one and the outturn was better than in the previous year, though the area was smaller. The quantity of cotton seed exported increased from 33,706 cwts. valued at ·61 lakh to 123,376 cwts. valued at 4·15 lakhs. The whole of the trade was with the United Kingdom, where the prices obtainable gave a better return than was possible by crushing the seed in this country. The exports of cutch declined from 90,359 cwts. valued at 14·21 lakhs to 61,347 cwts. valued at 9·01 lakhs. The decline was attributed partly to a smaller demand owing to the weakness of the home markets and the increasing use of aniline dyes, and partly to a smaller supply, as trade in other commodities was found more profitable. The exports of groundnuts were 212,227 cwts. valued at 14·19 lakhs in 1907-08 and 174,557 cwts. valued at 9·99 lakhs in the year of report. Larger shipments to India accounted for part of the decrease, and the extraction of groundnut oil in Burma, of which the exports increased from 700 gallons to 5,212 gallons, for the remainder. A further heavy decline took place in the value of hides and skins exported owing to the low prices obtainable in the European and American markets and the difficulty of obtaining supplies on account of the prevalence of plague in Upper Burma. The shipments of teak from Rangoon to foreign ports decreased from 32,048 tons valued at 49·78 lakhs in 1907-08 to 21,363 tons valued at 32·60 lakhs. The acute depression in all the industries in Europe in which teak is used contracted the demand to some extent, and it is probable that a process of substitution of other woods for teak was also in progress. The percentage of the total trade of the port of Rangoon which fell to the British Empire increased from 52·73 in 1907-08 to 60·57 in the year of report.

Foreign Exports—Minor Ports.

137. There was a drop of 9·78 lakhs in the foreign export trade of the subordinate ports, mainly on account of the diversion of rice to India. Kyaukpyu, Mergui, Moulmein and Victoria Point receded, while Akyab, Bassein and Tavoy advanced. No trade was registered at Kyaukpyu. The fall in the trade of Mergui and Victoria Point was mainly under mother-of-pearl shells and tin (block) respectively. Smaller exports of rice-bran, rice and teak account for the drop in the trade of Moulmein, which is still handicapped by the bad condition of the Moulmein River. The improvement at Akyab and Tavoy is accounted for by the larger exports of rice. Bassein's foreign export trade, which consists solely of rice

and rice-bran, continued to expand. The year was a bad one for the pearl industry of Mergui and the number of pearling boats decreased very largely.

Coasting Trade.

138. The total value of the coasting import and export trade of Rangoon in merchandise and treasure increased from 2,018·15 lakhs to 2,116·88 lakhs or by 5 per cent. during the year of report. Excluding treasure the advance was from 1,936·17 to 2,090·03 lakhs. Increased exports of rice were the principal cause of the expansion. The total value of the imports was 661·44 lakhs as compared with 718·07 lakhs in the previous year, but the coastwise exports increased in value from 1,218·09 to 1,428·59 lakhs. There was an increase of over four lakhs in the value of pulse shipped to India on account of the scarcity there. The exports of unhusked rice increased by 999,886 cwts. owing to the demand in India for parboiled rice which is manufactured from it. The exports of rice to the Madras Presidency increased by 1,464,489 cwts. Shipments to Calcutta and Bombay also increased, but those to Chittagong declined owing to better crops in Eastern Bengal. The coasting trade in kerosene oil declined by 1,203,002 gallons and 2·71 lakhs, and there was a fall in the quantity of "other sorts" of oils exported of 930,624 gallons. There was an advance in the quantity of groundnuts exported to India from 13,871 cwts. to 18,165 cwts. The shipments of lac increased from 13,954 cwts. to 21,194 cwts., but the value fell from 6·65 to 6·42 lakhs. Exports of teak from Rangoon increased by 1,977 tons and 2·21 lakhs and from Moulmein by 1,855 tons. The Indian markets are now the outlet to which shippers look for the disposal of the increasing proportion of inferior timber in their supplies, and in spite of larger supplies prices were fairly well maintained in most of the markets except Calcutta. The total value of the import and export coasting trade in merchandise of the subordinate ports increased from 593·28 lakhs to 617·78 lakhs or by 4·13 per cent. Imports declined from 249·05 lakhs to 233·40 lakhs, while exports advanced from 344·23 lakhs to 384·39 lakhs.

Transfrontier Trade.

139. The volume of the overland trade of Burma declined slightly in the year of report in comparison with the previous year. The aggregate value of imports and exports was 517·33 lakhs as compared with 533·90 lakhs in 1907-08. The value of the imports was nearly the same in the two years, 256·27 lakhs in 1908-09 and 256·91 in 1907-08, but the value of the exports fell by 16 lakhs from 277 to 261 lakhs. Trade was dull throughout the year, having been greatly hampered by a virulent outbreak of plague in Mandalay and by exaggerated rumours of the extent of the outbreak there and elsewhere. All countries on the frontier were affected by these adverse trade conditions except the Northern Shan States and Southern Siam, which shew an increase of about 15·16 lakhs and 2·43 lakhs respectively over the figures of the previous year. Taken individually the decrease by the Western China route was 4·81 lakhs, Southern Shan States 12·06 lakhs, Northern Siam 5·65 lakhs and Karenni 11·64 lakhs. The decrease would have been greater but for the opening of additional registering stations making registration more effective.

Western China.

140. The imports from Western China declined in value from 39·34 to 34·03 lakhs, while exports increased from 48·05 to 48·55 lakhs. The total trade shewed a decrease of 5·5 per cent. The decrease of over one lakh in the value of hides was due to the withdrawal of Messrs. Fabricius & Co.'s agency from Bhamo and partly also to the inferior quality of the hides caused by bad packing. Silver declined by five lakhs. The value of European piece-goods exported increased by 4·73 lakhs which more than counterbalanced a fall of 3·26 lakhs in value of the exports of Raw Cotton and Twist and Indian Yarn.

Northern Shan States.

141. The imports from the Northern Shan States which were valued at 82·25 lakhs in 1907-08 rose to 97·49 lakhs, an increase of 18·53 per cent., while exports were practically stationary. The largest increase is 7 lakhs under the head of other metals which represents the value of the lead ore imported into Burma from Bawdwin by the Burma Mines Company, Limited. Black tea and husked rice each advanced by over 2 lakhs and silver and teak by over 3 lakhs each.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

The heavy November rains made the season a very good one for floating teak and the amount extracted was the largest on record. Exports decreased by ·09 per cent. but taking into consideration that there was a decrease of 12 lakhs under the heads of railway materials and iron owing to the completion of the Burma Mines Railway, and that the plague in Mandalay caused a decrease of a lakh under the head of silk goods, it is clear that there was a large increase under other heads of export. The articles which shewed the largest increases were Twist and European Yarn (1·32 lakhs), really mostly Indian, but erroneously classified as European by the Railway authorities. European Piece-goods rose from 16·12 to 20·99 lakhs, Wet Fish (*ngapi*) from 1·54 to 3·88 lakhs, and Silver from 10·04 to 13·67 lakhs. In consequence of the outbreak of plague at Bhamo resulting in a diversion of trade to the Kunlôn ferry route to China, there was a large increase in European Piece-goods, Salt, and Twist and Yarn exported to the Northern Shan States, and there is reason to believe that a considerable portion of these goods found their way to China.

Southern Shan States.

142. The trade with the Southern Shan States decreased by 7·60 per cent. imports and exports shewing decreases of 7·92 and 7·37 respectively. The decrease in imports was almost entirely due to the diminished trade in stick lac, the result partly of the unsatisfactory state of the foreign markets. Teak timber shewed a falling off of 2·86 lakhs, but there was an increase of 1·77 lakhs in the value of animals imported. The other decreases are due to re-classification and are only apparent. The value of European Piece-goods exported rose from 31·82 lakhs in 1907-08 to 34·06 lakhs in 1908-09. The chief articles comprised in the decrease were Jewellery, 1·67 lakhs; Silk manufactured piece-goods, 1·52 lakhs; Wool manufactured, 2·69 lakhs; and Silver, 1·64 lakhs. The decrease in jewellery was due to the abnormally high figures of 1907-08 caused by the visit of the Shan *Sawbwas* to the Viceroy's Darbar at Mandalay. The decrease in silver was attributed to the decreased import of teak.

Northern Siam.

143. There was a decrease of 5·65 lakhs or 8·67 per cent. in the trade with Northern Siam. Imports decreased by 12·23 per cent. chiefly under silver, due probably to an unfavourable rate of exchange and partly to the prevalence of elephant stealing on the Siamese borders which interfered with the timber traffic and caused a corresponding diminution in the quantity of silver imported. There was a falling off in the import of elephants and manufactured silk and a decrease in the value of the teak imported despite an increase of nearly 40 per cent. in quantity. In exports the decrease was 3·64 per cent., noticeable principally under silk manufactured piece-goods, 1·14 lakhs, and Twist and Yarn, Indian, ·89 lakh, which was partially made up by an increase under Twist and Yarn, European, of 1·50 lakhs.

Southern Siam.

144. Imports are solely responsible for an increase of 16·48 per cent. in the total trade with Southern Siam (from 14·73 to 17·16 lakhs). Cattle, elephants and silk manufactured piece-goods were the principal items contributing to the increase. The inappreciable decrease in exports was probably the result of trade fluctuations.

Karenni.

145. The total value of the trade with Karenni fell from 39·20 lakhs in 1907-08 to 27·56 lakhs in 1908-09, a decrease of 29·69 per cent. Had it not been for the large increase of 1·18 lakhs in the import of elephants *viâ* Toungoo and the newly opened station at Leiktho the decrease would have been even greater. The quantity of silver exported diminished by 7·24 lakhs, principally as the result of the fall in prices of teak.

Public Works.

General.

146. Several administrative changes in the organisation of the Public Works Department were made. The Sanitary Engineer, Burma, was relieved of the

supervision of the Rangoon Town Lands Reclamation Works, the Executive Engineer in charge of which was placed under the direct control of the Chief Engineer and Joint Secretary to Government. The appointment of Superintending Engineer Architect was abolished with effect from the 5th February 1909 and the Rangoon Construction Division, the only Division in his charge, was transferred to the Rangoon Circle. The Martaban Division was abolished at the close of the year and the public works in its area were divided between the Amherst and Pegu Divisions. In the Southern Shan States the Kēngtūng Division was transformed into an independent subdivision in whose charge were placed all public works east of the Salween. The total expenditure on public works was 115·87 lakhs of rupees. In 1907-08 it was nearly 140 lakhs. The decreases took place under the heads of Military Works the expenditure on which fell from 12·15 to 7·65 lakhs and Provincial Civil Works on which a sum of 81·28 lakhs was spent as compared with 105·54 lakhs in 1907-08. The lack of funds operated to some extent to retard progress in the construction of buildings required in the Province.

(*i*) *Roads and Buildings.*

Communications.

147. In Burma as in the majority of countries whose material development did not begin until after the inauguration of the railway era, the railway is principally relied on for communication between places widely separated in distance and no complete system of trunk roads has ever been constructed. The only roads meriting this description are either those constructed prior to the commencement of railways such as the Rangoon-Prome road and the stretch of roadway which, interrupted by the Salween river at Moulmein, runs from Kyaikto to Amherst, or roads built for political or commercial reasons to places which it seemed improbable that the railway would reach in any reasonable time such as the roads running from the plains to Lashio and Taunggyi, the administrative headquarters of the Northern and Southern Shan States, and the Mogôk-Thabeikkyin road, which was required for the development of the Ruby Mines. The other roads in the Province are as a rule feeder roads leading to the railway or affording communication between the various important towns and villages within districts. At the close of the year of report the total length of metalled roads was 1,883·55 miles and of unmetalled roads 9,434·84 miles. Of this total 1,725·07 miles of metalled and 6,095·73 miles of unmetalled roads were under the charge of the Public Works Department and the remainder maintained by local authorities. During the year 50·07 miles of metalled roads and 73·49 miles of unmetalled roads were opened to traffic for the first time. The amount expended on communications was much less than in the previous year, the figures being 12·60 lakhs on new roads and 21·57 lakhs on maintenance of existing roads as compared with 16·23 lakhs and 24·56 lakhs respectively. The decrease in expenditure was spread over all the heads, less money being spent on construction and repairs of both metalled and unmetalled roads.

Metalled roads.

148. In the Amherst District the second section of the Moulmein-Kyaikmaraw road was completed Other new roads on which progress was made were the Minbu-Salin road in Minbu District, which passes through the region to be irrigated by the Môn Canals, a road to connect the Prome road and Thamaing in Hanthawaddy District, a section of the Tavoy-Mergui trunk road, and a road from Lintha to Andrew Bay in the Sandoway District. The work of improvement and maintenance of the existing metalled roads went on without interruption. The most important and necessary part of this work consisted in the replacement of the timber bridges, which were built when the roads were first constructed and are now in many places shewing signs of serious decay, by more permanent structures of reinforced concrete or steel girders. Lack of funds prevented as much progress as was desirable from being made in this direction. The continuous improvement of the hill roads proceeded by the provision of better gradients and easier curves, the construction of causeways to pass away flood water and the fencing of dangerous portions. Attention was directed to the granite quarries which have in recent

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

years been opened up in the Thatôn District and which promise to provide a supply of metal at a reasonable cost to replace the burnt clay which has hitherto been used with rather unsatisfactory results for the surface of roads in the Delta Districts where stone does not exist.

Unmetalled roads.

149. In many parts of the Province the nature of the soil and the comparative smallness of traffic render unnecessary the construction of expensive metalled roads. In such places the opening out and maintenance of unmetalled roads and bridle paths provide sufficiently for the requirements of the population This work went on during the year of report as it has done continuously for many years over nearly the whole of the Province. In the Shwebo District roads of this class were under construction to serve the area on which cultivation has been enormously extended by the opening of the Shwebo Irrigation Canal. On unmetalled roads in clay soils experiments with successful results were made in the use of sand as a substitute for metal.

Communications—Miscellaneous.

150. On the Chinese Frontier road in the Bhamo District several bridges were completed, of which the most important were the bridge over the river Kulika, of which half the cost was paid by the Chinese Government, and a 40-feet reinforced concrete arched bridge at Sinlum. A sum of Rs. 85,530 was spent under the heading "Accommodation for Travellers" in the erection and maintenance of inspection bungalows, rest-houses and caravanserais.

Buildings—Imperial.

151. The expenditure on Imperial buildings, which was Rs. 3,48,130 in 1907-08, rose to Rs. 5,60,138 in 1908-09. A sum of Rs. 3,12,000 was paid for land in Rangoon intended as a site for a new telegraph office. A new telegraph office was built at Maungdaw in the Akyab District. A radio-telegraph station at Mergui was completed and another was under construction at Victoria Point. Under the Land Acquisition Act sites for a new General Post Office in Mandalay and a new branch Post Office in East Rangoon were purchased. New Post Offices were completed at Tavoy, Tunhong, Kandawgale (Rangoon) and in the British Infantry lines at Maymyo. The new Currency Buildings in Rangoon were occupied during the year, but the rebuilding of the portion of the old building which collapsed during the previous year was not completed. Offices built in Maymyo for the Deputy Inspectors-General of Police and rendered available by the transfer of the headquarters of these officers to Rangoon were adapted at a cost of Rs. 8,000 for the use of the Survey of India Department. The Anglican Church at Toungoo, originally built for the use of the troops when Toungoo was a Military station, was partially dismantled and the portion retained re-roofed with shingles.

Buildings—Povincial.

152. A very large reduction was made in the amount expended from Provincial Funds on buildings, which in 1907-08 was 46·96 lakhs and in 1908-09 fell to 23·54 lakhs. The reduction was spread over the amounts allotted to all Departments. The larger works which have been in progress for the past few years were either completed or approaching completion. On the largest, the new General Hospital, Rangoon, a sum of Rs. 2,80,000 was spent during the year principally on sanitary work and electric fittings. The buildings themselves were practically completed, but some difficulty was experienced in deciding upon the best system for the supply of hot water, and the completion of the whole work was consequently somewhat delayed. The expenditure on the new Chief Court building in Rangoon during the year was 3½ lakhs. The main building was nearly completed and good progress was made with the installation of the sanitary and electric fittings and the laying out of the compound. The new Police Training School at Mandalay was completed and brought into occupation. The failure of the trial tube well borings occasioned some delay in the provision of a water-supply, and it was decided to procure water from a tube well in the adjacent Military Police lines, which yields a good supply. The lighting arrangements were delayed from want of funds and, pending the introduction of electric lighting, oil lamps are being used as a temporary measure. The foundations of a new building for the Government

Press, Rangoon, were laid, but work was then stopped on account of want of funds. The Agricultural Department farm at Mandalay was fenced and the farm buildings erected. The residence of the Principal was nearly completed at the close of the year, and the chemical laboratory, built in the previous year, was brought into use. The collection of materials for a new forest school at Pyinmana, the erection of which at a cost of Rs. 1,40,673 has been sanctioned, was begun. The School of Engineering at Insein was completed and the buildings occupied during the year. Of the total estimated cost of Rs. 2,50,832 a sum of Rs. 2,42,925 has been expended. On the new jail at Moulmein Rs. 72,000 was spent. The jail was occupied during the year, but three auxiliary buildings, a segregation ward, a contagious diseases ward, and a sale room, are still required. A change was made during the year in the method of assessing the rent charged for buildings erected by the Public Works Department and occupied as residences by civil officers. Formerly the rent charged was assessed at a percentage of the original capital cost of each separate building. It has now been decided that all such buildings which are not subject to any special condition shall be in one main group and that the rent charged for each building shall be $7\frac{3}{4}$ per cent. of the pay and allowances of the officer occupying it. This rate has been calculated to give on the average a return of 7 per cent. on the capital cost of the building.

Miscellaneous.

153. The expenditure of the Public Works Department on Miscellaneous works not coming under the head of Roads and Buildings was 22·33 lakhs or over 7 lakhs more than in the previous year. Nearly 12 lakhs of this were charged to Provincial Funds. The improvement of several civil stations by the building of roads, the clearing of jungle and the provision of drainage was continued. Extensions to the water-supply at Maymyo and Mogôk were nearly completed. Work on the Rangoon Town Reclamation Scheme was continued. The expenditure during the year was Rs. 7,84,984 in addition to a sum of Rs. 1,25,741 contributed by private individuals for the reclamation of low-lying lands belonging to them. A revised programme providing for an annual expenditure of 17 lakhs was sanctioned by the Government of India.

(*ii*) *Railways and Tramways.*

Railways—Construction.

154. The working of the railway system of the Province remained in the hands of the Burma Railways Company. The only section opened to traffic during the year was the line from Danbi to Kyangin, part of the Henzada-Kyangin Branch on the 14th December 1908. The length of open line was thus increased from 1,474·92 miles at the opening of the year to 1,527·08 miles at its close. No lines were under construction at the close of the year. A construction estimate and plans for a bridge over the Irrawaddy river at Sagaing joining the northern and southern sections of the line were completed, but in view of the financial position and the greater urgency of other works it was decided to postpone construction and operations ceased on the 31st March 1909. The survey of the projected Southern Shan States Railway from Thazi to Yawnghwe was completed and a project report submitted to the Railway Board. The survey of a line from Pyinmana to Magwe was also completed, but immediate construction was not recommended. The project of a line to connect Moulmein with Myawaddy on the Siamese frontier was completed and referred to the Burma Railways Company and various local capitalists, none of whom, however, volunteered to undertake the construction on a guarantee. The construction of the projected lines from Shwebo to Ye-u and Myingyan to Natogyi was indefinitely postponed. A detailed survey of a line 378 miles in length to connect Chittagong with Zadabin in the Arakan Division was sanctioned and a report on it has been received. Extensive repairs and renewals to the permanent way between Rangoon and Prome were discovered to be necessary and are being carried out. The construction of a line from Malagôn to Dawbôn in order to give railway connection to the mills on the east side of the Pazundaung creek in Rangoon was sanctioned but the commencement of the work was postponed pending the settlement of various questions in connection with the bridge over the creek.

CHAP. IV.—PRODUCTION AND DISTRIBUTION. Railways—Interruptions and accidents.

155. Only two serious interruptions to traffic were caused by floods in the course of the year. A flood on the Samôn river on the 10th November 1908 washed away the line in five places, one of 400 feet in length, and caused the suspension of all traffic till the 13th November. It then became possible to tranship goods and passengers, but through traffic was not restored till the 24th November. On the 11th November the bank of the old Mu canal in the Shwebo District gave way and the flood thus released washed away the entire railway embankment for a distance of 98 feet and a half section of the bank for 600 feet. Traffic was suspended till the 16th November when through communication was restored. There were twelve minor interruptions to traffic from floods and landslips, but in none was any serious delay caused. Accidents were somewhat numerous, but only two resulted in loss of or injury to human life and only one could be described as serious. On the 3rd June 1908 as a fuel train was leaving Naba station the hook coupling the brakevan to a goods waggon broke and before brakes could be applied the rear portion of the train broke away down a steep incline and dashed into the Naba station buildings. The signaller on duty was killed and a cook in the end brakevan injured. On the 24th March 1909 a passenger train was derailed at the entrance to a diversion between Zeyawadi and Nyaungchidauk stations in the Toungoo District. The whole of the front part of the train consisting of a horse-box and five third-class coaches was telescoped and piled up. Fire broke out immediately and the whole of the train with the exception of the two rearmost vehicles, which were uncoupled and pushed back clear of the fire, was burnt. So far as can be ascertained nine lives were lost, and seven persons were seriously injured and removed to hospital for treatment. Seven others received slight injuries and were treated as out-patients. The cause of the accident was the extinction of the signal lamp marking the beginning of the diversion. The driver of the train in the absence of the warning which it ought to have conveyed to him failed to reduce his speed to the five miles an hour prescribed for trains passing over the diversion. The line foreman, whose duty it was to see that the lamp provided was kept burning all night, absconded and the driver of the train was prosecuted. Twelve accidents in all occurred to passenger trains. The most frequent cause of derailment was the breaking of axles. Only one case of train-wrecking took place, when two gate-posts were placed across the line and here it is most probable that simple mischief was all that was intended. Two collisions occurred, one as the result of a station master giving a driver a fictitious "authority to proceed" and the other of a driver running against signals in a heavy fog, but neither resulted in any serious damage to permanent way or rolling-stock. A stray buffalo on the line was responsible for the derailment of one train and considerable damage to two waggons.

Railways—Finance and Traffic

156. The capital expenditure on the Burma Railways during the year was 86·99 lakhs raising the capital outlay from the commencement of operations till the 31st March 1909, to 17 crores 32 lakhs. The gross earnings were 189·32 lakhs as compared with 179·11 lakhs in 1907-08 and working expenses increased from 108·71 lakhs to 113·38 lakhs. The net earnings for the year amounted to 75·94 lakhs, an increase of 5·54 lakhs over those of the previous year. The percentage of expenditure to receipts, which was 60·69 in 1907-08, fell to 59·89 in the year of report, while that of net receipts to capital outlay rose from 4·28 to 4·39. With the sanction of the Secretary of State the Burma Railways Company raised £1,000,000 of additional capital by an increase to its share capital under certain terms and conditions embodied in a supplementary contract dated the 9th June 1909. The aggregate train mileage was 5,991,988 miles or 463,773 miles in excess of that of the previous year. On the main line earnings per train mile were 3·27 as compared with 3·28 in 1907-08, and on the Pegu-Moulmein and Henzada-Kyangin extensions the earnings were 1·94 and 2·38 respectively.

Tramways.

157. The tramway from Thatôn to Duyinzeik, which ceased to be worked after the opening to traffic of the Pegu-Moulmein Railway in September 1907, was dismantled during the year and the materials sold to the promoters of the Mandalay-Madaya light railway. Work on the latter undertaking was continued,

but it was found impossible to complete it within the time allotted and an extension of time till the end of the year 1909 was granted. Statistics of the Mandalay Tramways do not indicate any advance in prosperity. There was no increase in the length of the track. The mileage run decreased from 651,043 to 539,605 miles and the number of passengers carried was 2,502,441 or 73,484 fewer than in the previous year. The gross receipts from passengers amounted to Rs. 1,97,886. The commercial prosperity of Mandalay has not yet recovered from the shock which it received from the severe outbreaks of plague in recent years. The Rangoon Electric Tramways on the other hand give evidence of increasing success and popularity. The number of passengers carried increased from 6,026,915 in the previous year to 7,945,368, the mileage run was 1,404,162 as compared with 973,187 and receipts were Rs. 7,55,429 as against Rs. 5,68,603.

(*iii*) *Canals.*

Navigation canals.

158. The Pegu-Sittang and Sittang-Kyaikto canals are the only locked navigation canals in Burma. All other canals except the Twante canal are primarily irrigation works although the Shwetachaung in the Mandalay District is used to some extent for navigation. The aggregate quantity of goods and timber passing through the Pegu-Sittang canal was 290,250 tons and their estimated value Rs. 110·66 lakhs, while 20,618 tons valued at Rs. 4·50 lakhs passed through the Sittang-Kyaikto canal. The figures for the Pegu-Sittang canal are larger than those of the previous year but though the amount of goods carried by the Sittang-Kyaikto canal was nearly 2,000 tons in excess of that carried in 1907-08, their value was 5·21 lakhs less. The receipts from the Pegu-Sittang and Sittang-Kyaikto canals were Rs. 1,58,857 and Rs. 5,692 respectively, and the working expenses Rs. 1,40,132 and Rs. 14,397. The net revenue was Rs. 10,020 as compared with Rs 15,658 in 1907-08. The working expenses were reduced by Rs. 19,449 but the reduction in earnings amounted to Rs. 25,087. The navigation receipts from the Shwetachaung canal were Rs. 5,700 during the year.

Irrigation.

Major Works, Imperial—(i) Completed works.

159. The Mandalay and Shwebo canals were the only Major irrigation works in active operation. The area watered by the Mandalay canal which was 53,949 acres in 1907-08 rose to 56,350 acres in the year of report. The increase in irrigated area in the Shwebo canal was much larger, from 91,483 acres in 1907-08 to 148,123 acres in 1908-09. The area under irrigation during the growing season of the main rice crop was 142,187 acres or 10,187 acres more than the area for which the original project was designed. This canal has already changed the aspect of the district. Abundant crops are now to be seen on lands where cultivation was formerly precarious or impossible. The expenditure on capital account on the Mandalay canal was Rs. 54,100. The construction of two new distributaries was commenced and five additional bridges built over the canal. The works intended to drain the Aungbinlè tank were completed and proved successful. On the Shwebo canal the expenditure on capital account amounted to Rs. 3,48,779. Good progress was made towards the completion of the remaining works. On the Main canal the construction of distributaries and water-courses was practically finished. The construction of two distributaries on the Hladaw Branch canal was taken in hand and good progress made. On the Môksogyôn Branch canal five distributaries and six direct water-courses were completed. Surveys were made for a new distributary on the Hladaw Branch canal. In order to improve the distribution of water and to counteract a tendency to scour which had been observed, the construction of two regulators in the Main canal was sanctioned and one nearly completed. Improvements which were found necessary in the existing regulators were taken in hand, and good progress made towards their completion. A considerable amount of damage was done to the banks of the canal by the floods which followed the heavy rains of November 1908 and rendered necessary considerable expenditure on repairs. Ten miles on the Main canal and 23 miles

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

on distributaries were planted with young trees. The receipts from the Mandalay canal were Rs. 3,34,201 and the working expenses Rs. 91,767 leaving a net revenue of Rs. 2,42,434. This compares with a revenue of Rs. 3,09,353 in 1907-08, but the figures for that year were abnormal owing to an adjustment of arrears amounting to Rs. 1,15,036 which took place in it. The receipts represented a return of 4·68 per cent. on the capital outlay. The net revenue from the Shwebo canal rose from Rs. 1,66,074 in 1907-08 to Rs. 2,15,187 in the year of report. The yield on the capital outlay amounted to 4·08 per cent.

Major Works—(ii) Works under construction.

160. The two Major works under construction during the year were the Ye-u canal in the Shwebo District and the Môn canals in Minbu. The expenditure on the former was Rs. 28,309 of which Rs. 12,096 was devoted to the acquisition of land for the Main canal. A revised project shewing the main lines proposed for the construction was prepared and submitted for approval. The alignment of the Main canal was set out for the first fourteen miles and the land demarcated and acquired. Petty repairs were carried out in the pitching of the Head Regulator. Satisfactory progress was made in the construction of the Môn canals which take off from the left and right banks of the Môn river at Mèzali in the Minbu District. Heavy floods in November delayed for two or three weeks the commencement of operations on the Head Works of the canal but at the end of the year these were well advanced towards completion. With the exception of a few gaps for bridges or temporary crossings, the earthwork and masonry on the North Môn canal were finished. On the South Môn canal on a length of 2,000 feet work had not been begun and some earthwork still remained to be done in other places. Two bridges were finished and work on two others was in progress. Seven distributaries were completed with the exception of outlet heads and water-courses and work on others was in hand. The capital outlay during the year was Rs. 8,74,696 bringing the total up to Rs. 33,95,736. The estimated cost of the work is 44 lakhs.

Minor works—Provincial.

161. There are numerous minor irrigation works scattered over the districts of the dry zone in Upper Burma the majority of which were taken over from the Burmese Government and have since been maintained and improved by the Public Works Department. The area irrigable from these works is 503,375 acres, but the area actually irrigated during 1908-09 was 293,289 acres as compared with 253,469 acres in 1907-08. The gross receipts from these minor irrigation works were 9·30 lakhs of rupees and the expenditure 5·83 lakhs leaving a net revenue of 3·47 lakhs which compares with 3·22 lakhs in 1907-08. Various improvements on the works were carried out during the year. The raising and widening of the bank of the Shwetachaung canal begun in the previous year was completed. In the Shwebo District the Mu canal, an old Burmese work, was badly damaged by the November floods and extensive repairs were carried out. In the Kyaukse District the construction of a new canal was in progress. The rains in November did a considerable amount of damage to the canals in this as in all other districts in the dry zone.

CHAPTER V.

REVENUE AND FINANCE.

REFERENCES—

Land Revenue Administration Report of Burma for the year ended the 30th June 1909.

Report of the Public Works Department, Burma (Irrigation), for the year 1908-09.

Report on the Maritime Trade and Customs Administration of Burma for the year 1908-09.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign countries and Indian Ports for the year 1908-09, Part I, Foreign Trade.

Report on the Administration of the Excise Department in Burma during the year 1908-09.

Report on the Administration of the Salt Revenue in Burma during the year 1908.

Note on the Administration of the Stamp Revenue in Burma during the year 1908-09.

Note on the working of the Income-Tax Act, II of 1886, in Burma during the year 1908-09.

Report on the Forest Administration of Burma for the year ending the 30th June 1909.

Report on the working of the Rangoon Municipality for the year 1908-09.

Resolution on the Reports on the working of Municipalities in Burma during the year 1908-09.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.

Statistics of British India, Parts IV(*a*), IV(*b*) and VIII.

Gross Revenue.

162. The sum total of all the receipts of the year ending the 31st March 1909 paid in to the credit of Imperial, Provincial and Local Funds was 11 crores 26½ lakhs of rupees, an improvement of nearly a crore of rupees on the figures of the previous year. Converted into sterling at the rate of 15 rupees to the sovereign the revenue amounted to £7,510,000 as compared with £6,842,000 in 1907-08. The revenue credited to Imperial Funds amounted to three crores 86⅓ lakhs or £2,576,000, an increase of 4·57 lakhs over the previous year's figures. There were increases under the heads of Land Revenue, Salt, Assessed Taxes, and Forests and decreases under the heads of Opium, Stamps, Excise, Customs and Irrigation, which are discussed in the paragraphs dealing with these subjects. Provincial receipts were 451·66 lakhs or £3,011,000, an increase of nearly 11 lakhs over the revenues of the previous year. The various funds, District Cess, Port Trust and Municipal Funds classified as Local Funds had an income of 288·47 lakhs or £1,923,000 or 84 lakhs more than in 1907-08. The increase is principally accounted for by loans raised during the year by the Rangoon Port Trust and the Rangoon Municipality. The gross expenditure under all heads increased from 727·97 lakhs to 781·47 lakhs or £5,209,800 sterling. Provincial expenditure remained at very nearly the same figure as in 1907-08 and Imperial expenditure was less by nearly a lakh. The increase is accounted for by the large expenditure by the Rangoon Port Trust on their Harbour Works and River Training scheme.

(*a*) *IMPERIAL REVENUE AND FINANCE.*

Land Revenue.

163 The gross land revenue of the Province increased from 387·10 lakhs to 410·69 lakhs. The Report on the Land Revenue Administration deals with the agricultural year, which closed on the 30th June, and in consequence the statistics of revenue there given differ from those exhibited in the Financial Accounts of the Province for the financial year ending on the 31st March. The great bulk of the revenue is, however, assessed and collected in the nine months common to both years, and in most years the explanations of variations given in the departmental report are equally applicable to the fluctuations shewn in the accounts. The figures quoted in the remainder of this paragraph are taken from the Land

Land Revenue Receipts.

CHAP. V.—REVENUE AND FINANCE.

Revenue Report and relate to the agricultural year. Statistics relating to *Ordinary Land Revenue*, that is, revenue levied on land under occupation in Lower Burma and under at least partly successful cultivation in Upper Burma, have been given in paragraph 29, and it is unnecessary to repeat them here. Receipts from capitation-tax increased from 51·18 to 52·83 lakhs, and the number of persons assessed was 41,038 more than in 1907-08. Special attention was devoted to the assessment of this tax during the year as there were grounds for believing that in previous years large numbers had escaped. The number of households assessed to *thathameda* in Upper Burma increased by 5,195, from 756,035 to 761,230. The demand increased from 40·12 lakhs to 41·03 lakhs and the receipts from 37·17 lakhs to 40·61 lakhs. Remissions amounted to only Rs. 40,121 as compared with over Rs. 2,80,000 remitted in the previous year. The favourable agricultural season accounts for these variations. The receipts from land rate in lieu of capitation-tax fell from Rs. 95,162 to Rs. 92,867. The area assessed diminished by 124 acres in consequence of a fire in two blocks in Henzada. The receipts from fishery revenue increased from 25·53 to 27·68 lakhs. For several previous years this revenue had been declining partly owing to the institution of a 'close season' and partly on account of the climatic conditions which prevailed in the years following 1905-06. Generally speaking the year of report was favourable for the industry, though damage was done in several districts by high floods in November. In the Magwe Division the Irrawaddy did not rise to a sufficient height to fill several of the larger fisheries on its banks and the season was in consequence poor. Substantial progress was made in the subdivision of fisheries during the year. Miscellaneous land revenue increased from 24·89 lakhs to 29·37 lakhs. Nearly 4½ lakhs of this increase was derived from fees, rents and royalties on petroleum, but there was also an increase in the rent of Town Lands and in royalties on other minerals. There was a very large increase in the output of petroleum during the year in the Magwe District. The Burma Gold Dredging Company made a first payment of Rs. 10,618 on account of gold won by them in the Myitkyina District.

Canal (Navigation and Irrigation) Revenue.

164. The total capital expenditure on navigation and irrigation works was Rs. 16,88,517. The aggregate gross receipts from all the works of this kind in the Province amounted to Rs. 36,58,529, the working expenses to Rs. 13,46,598 and the total net revenue to Rs. 23,11,931. For the majority of the works no capital account has been opened and it is therefore impossible to give figures to shew the actual percentage of receipts to capital expenditure. As regards those works for which figures are available the net revenue of the Mandalay Canal amounted to 4·68 per cent. on the capital, of the Shwebo Canal to 4·08 per cent. and of the Lower Burma embankments to 26·65 per cent.

Sources of Imperial Revenue other than the Land.

Customs.

165. The net revenue from Customs exclusive of import duty on salt fell from 133 lakhs in 1907-08 to 122 lakhs in the year of report. The decrease took place in the export duty, which produced 19·16 lakhs less than in the previous year. The amount received as duty on imports increased by 8·02 lakhs. The cause of the decline in export duty was the diversion of rice exports from Burma from ports of foreign countries to Ports in India on exports to which no duty is paid and the consequent decline in the export trade to Germany, the Straits Settlements and the Far East.

Opium.

166. Receipts credited to the major head Opium represent the cost of opium, at Rs. 8-8-0 a seer supplied by the Government of Bengal for distribution to the licensed opium shops in Burma. They amounted to 4·82 lakhs as compared with

5·36 lakhs in the previous year. The decrease was the result of the smaller sales of opium during the year from the licensed shops which reduced the quantities which the Local Government required to purchase.

Salt.

167. The total collections of salt revenue during the year 1908 amounted to Rs. 20,48,026 as compared with Rs. 19,69,693 in the previous year. The excise duty on local salt produced Rs. 24,183 less, but there was an increase of Rs. 1,02,516 in the amount of duty collected from imported salt on removal from bond. The estimated consumption of salt in the Province was 2,330,876 maunds, an increase over the figures of 1907 of 60,581 maunds. The estimated output of local salt was 853,129 maunds as compared with 817,359 maunds in the previous year. Despite a heavy stock in bond the imports of foreign salt were larger than in 1907, being 1,777,687 maunds as compared with 1,689,315 maunds. The quantity in bond at the end of the year was greater than at its commencement. Imports from the United Kingdom declined sharply and of the quantity imported more than half was left in bond at the end of the year. German salt found its way to the Province in larger quantities, but the most important increases were in imports from Aden and Salif (Asiatic Turkey). The percentage of the consumption of local salt to the total consumption was 32 per cent. as compared with 35 per cent. in 1907 and 36 per cent. in 1906. Local salt is generally used for fish-curing, but foreign salt, though at a slightly higher price, is preferred for ordinary consumption. The retail price of salt was slightly lower than in 1907. The import of salted fish increased considerably as the fisheries of the Province are no longer able to supply the wants of an increasing population. No change was made in the method of assessing duty on locally manufactured salt. The special enquiry into the conditions of the salt industry mentioned in last year's report was completed and the report submitted after the close of the year.

Excise.

168. The gross excise revenue which was Rs. 84,32,945 in 1907-08 fell to Rs. 82,15,305 in the year of report. The loss took place entirely in the opium revenue which was less by five lakhs of rupees than in the previous year, while the excise receipts from the sale of liquor were 2¾ lakhs more. License fees for the sale of foreign liquors and excise duties on locally manufactured foreign spirit produced approximately the same amount as in 1907-08. The increase took place in the license fees for the sale of toddy which rose from Rs. 5,82,075 to Rs. 6,79,608 and in the fees for the manufacture and sale of country spirit which increased from Rs. 14,04,415 to Rs. 15,74,230. The decrease of five lakhs in the opium revenue was chiefly due to a reduction in the quantity of opium sold retail at the licensed shops, and partly to a change in the system of supply of opium to the shops in the districts of the Mandalay Division other than Mandalay. For a part of the year 1907-08 Government purchased the opium and sold it to the license-holders at from Rs. 20 to Rs. 40 per seer. In the year of report the previous system under which license-holders imported their own opium on payment of a duty of Rs. 17 per viss or less than Rs. 10 per seer was reverted to and naturally caused a serious apparent decrease in the revenue. The expenditure of the Department has fallen from Rs. 15,43,572 in 1907-08 to Rs. 15,26,273 in the year of report. An increase in the number of officers on leave caused an increase of Rs. 35,568 under the head of Establishment. With diminished sales the amount charged as cost of opium fell from Rs. 5,80,591 to Rs. 4,92,566, and the abandonment of the system of Government supply of opium in the Mandalay Division also resulted in a decrease of the expenditure under this head. With regard to opium the declared policy of Government, to restrict sales to any one person to the amount of his ascertained or probable personal requirements, was maintained. With the accumulation of experience it becomes possible to enforce this policy with increasing strictness year by year, and the point has now been reached at which it may safely be asserted that the hawker of opium and the keeper of the opium smoking den are unable to draw any appreciable portion of their supplies from the licensed shops. With this source of supply cut off their only resource is smuggled opium, that is, opium illicitly imported from the Shan States into Upper

CHAP. V—REVENUE AND FINANCE.

Burma and from India and the Straits Settlements into Lower Burma. The quantity of such opium seized was larger than in the preceding year, 124,047 tolas as compared with 82,045 tolas, and it might be inferred that smuggling is on the increase. On the other hand, there are indications that the spread of the taste for opium among the Burmese population has been checked. Instances were reported where registered Burman consumers returned their certificates in token of their abandonment of the use of the drug and in the Arakan Division public meetings were held with a view to rousing opinion against opium. There can unfortunately be no doubt of the increasing use of cocaine in the Province, especially among Burmans. Seizures were reported from districts in which the drug had not previously been heard of. Careful enquiries are being made into the conditions of the traffic in the drug with a view to its suppression as far as possible. The contract distillery system for the supply of country spirit was continued in the Tenasserim Division. Lack of funds prevented its extension to other Divisions. An exhaustive enquiry into the number and location of liquor shops was carried out and the results proved that these were generally suitable. A reduction in numbers was effected in a few localities by the closing of shops which were proved to be unnecessary. Several changes were made in the rules under the Excise Act in order to carry out the orders of the Government of India on the Report of the Indian Excise Committee. The number of convictions for offences under the Excise Act was greater than in the previous year. It has been a source of complaint for many years that village headmen are generally apathetic in the performance of the duties entrusted to them in connection with the illicit manufacture and sale of liquor but there were some signs of an improvement in their attitude in this respect.

Stamps.

169. The gross receipts under the Stamp Act and the Court Fees Act in 1908-09 were Rs. 37·85 lakhs having fallen to that figure from 40·35 lakhs in 1907-08. The revenue from this source is smaller than in any year since 1905-06. The decrease in the receipts from judicial stamps is spread over the whole of the Province. It is a direct consequence of the decline in the volume of litigation, the reason for which was discussed in paragraph 75 of this Report. Bad trade as a result of plague and cholera in some districts, scarcity of money, a favourable agricultural year enabling the creditor of the cultivator to collect his dues without the necessity of resort to the Courts, and the fact that the money-lenders from the Madras Presidency known as Chetties have to a large extent ceased to finance cultivators and paddy brokers, are among the reasons advanced for the decrease in the stamp revenue. The receipts from non-judicial stamps fell from Rs. 13·35 lakhs in 1907-08 to Rs. 12·68 lakhs. Practically the whole of the decrease is accounted for by the diminished sale of impressed labels and special adhesive stamps in Rangoon Town, the figures for which were Rs. 3,42,303 in 1908-09 and Rs. 4,18,838 in 1907-08. There was a large receipt of Rs. 40,000 on a single instrument in the latter year, but the real reasons for the decline were commercial depression following on heavy and unsuccessful speculation by Indian traders and the collapse of the land speculation which had been a feature of the commercial life of the town for several years. The number of licensed vendors of stamps increased by 130. Action in respect of documents insufficiently stamped was taken by Courts in 973 cases and by Collectors in 624 cases. The corresponding figures for 1907-08 were 1,068 and 497. The number of prosecutions for offences against the stamp law fell from 168 in the previous year to 102, and 87 persons out of 116 brought to trial were convicted. There was an increase in the number of probate and administration cases reported by the Courts to Collectors of Stamps from 474 to 524, and the amount of deficient stamp duty which grantees of probate or letters of administration were called upon to pay as the result of investigation into the value of estates, rose from Rs. 1,640 to Rs. 9,114. Of this total a demand for Rs. 8,515 was made in Rangoon Town alone.

Assessed Taxes.

170. Income-tax was collected in the whole of Lower Burma and in the town of Mandalay in Upper Burma. The amount collected was Rs. 17,80,742 as

compared with Rs. 17,29,320 in the previous year. The total value of securities held in the Province which in the previous year had shewn a slight decline, increased by over 38 lakhs of rupees in consequence of the issue of debentures in new loans by the Rangoon Municipality and the Rangoon Port Trust. The figures dealing with the tax on salaries, whether paid by Government, by local authorities or by private employers, shewed an increase both in the number of assessees and in the amount of tax collected. The number of companies whose profits were assessed was less by seven than in the previous year, but the amount realised rose by Rs. 56,522. The increase took place in Rangoon Town. The figures with respect to assessments on private incomes are not, however, so satisfactory. The number of persons assessed was 352 more than in the previous year, but the amount collected fell by Rs. 24,765, a decline of 3 per cent. Of this decrease Rs. 17,844 occurred in Rangoon Town despite an increase of 38 in the number of assessees. The decline, however, was fairly general throughout the Province and the reasons assigned for it were usually general depression of trade, losses from speculation in paddy, restriction of business by the Indian money-lenders known as Chetties, and, especially in Mandalay, plague. The money-lending business is passing from these large firms which kept accurate accounts from which it was comparatively easy to ascertain the amount of profits on which the tax should be assessed, into the hands of a much more numerous class of small money-lenders who, generally speaking, keep no accounts and who frequently escape assessment. The expenditure on collection was slightly less than in the previous year. As a rule the tax was collected without difficulty and the number of cases in which process was issued was small. No change was made in the method of assessment or in the agency employed in the administration of the Act.

Forests.

171. The gross receipts from the Forest Department, 91·25 lakhs were nearly three lakhs in excess of those of the previous year. Compared with that year there was a fall of nearly 7 lakhs in the revenue derived from timber extracted by the Department for which a considerable fall in the price of teak and the curtailment of departmental extraction were responsible, and a rise of over $9\frac{3}{4}$ lakhs in the revenue from produce extracted by consumers and purchasers. The latter was chiefly due to a more favourable floating season which enabled purchase-contractors to bring out a much larger quantity of teak from the forests of the Northern and Southern Circles than in the previous year. The expenditure increased from 35·95 to 37·24 lakhs. Conservancy and works cost half a lakh more and the remainder of the increase was under the head of establishments. Slightly more was spent on departmental extraction than in the previous year and owing to floods the cost of drift operations was much greater, and more money was expended in connection with the extraction of timber by purchasers and on communications and buildings. Increased establishment charges were chiefly due to the re-organisation of the clerical establishment. The surplus was 54·01 lakhs as compared with 52·39 lakhs in 1907-08 and with an average surplus for the five years ending in 1907-08 of 56·51 lakhs. This average, however, is unduly inflated by the inclusion of the abnormal figures for the year 1904-05.

Imperial Expenditure.

172. Except under the head of Land Revenue where expenditure is debited entirely to Provincial Funds, Imperial and Provincial Funds contribute to the charges incurred under the various Budget heads in the same proportion as they benefit by the revenue accruing thereunder and these contributions form the bulk of the Imperial expenditure so far as it is dealt with in this Report. During the year ending March 1909 the total Imperial expenditure fell from 58·76 lakhs to 57·82 lakhs. The amount spent on Military works was nearly $4\frac{1}{2}$ lakhs less but under the head of Civil works the expenditure exceeded that of the previous year by over two lakhs principally owing to the purchase of sites for a new Telegraph Office in Rangoon and a new Post Office in Mandalay.

(*b*) *REVENUE AND FINANCE OTHER THAN IMPERIAL.*

Provincial Revenues.

CHAP. V.—REVENUE AND FINANCE. Provincial Receipts.

173. The greater part of the Provincial revenue is derived from heads of revenue the receipts of which are, in accordance with the terms of the Provincial Settlement which came into force on the 1st April 1907, divided between Imperial and Provincial Funds. The revenue under the remaining heads, which are either wholly Provincial or are shared with Local Funds amounted in the year of report to 40·93 lakhs of rupees. The total Provincial receipts for the same year were 451·66 lakhs as compared with a total in the previous year of 440·66 lakhs. In 1907-08, however, a sum of 97·26 lakhs and in 1908-09 a sum of 92·59 lakhs were contributed from Imperial to Provincial Funds to carry out the terms of the Provincial Settlement. Omitting these contributions the net Provincial revenue was, in 1907-08, 343·40 lakhs and, in 1908-09, 359·07 lakhs. Explanations of the variations in the amounts derived from heads of revenue which are divided between Imperial and Provincial Funds have been given in the foregoing paragraphs dealing with those heads. As regards the heads of revenue whose receipts are credited to Provincial Funds, the receipts from *Registration* fell from 2·04 to 1·93 lakhs in consequence of the general financial stringency and fears of impending land legislation. A decrease of Rs. 46,000 under the head of *Jails* was due to diminished sales of Jail manufactures and to a falling off in receipts for hire of convicts. An increase of Rs. 6,630 in the revenues classified under the head of *Police* was chiefly due to recoveries made from the Shan State of Möng Mit on account of the Police force supplied to that State. The reduction in the number of vessels visiting the Ports in Burma was responsible for the reduction from 4·70 to 4·46 lakhs in the receipts under *Ports* and *Pilotage*. The revenue from *Education* increased from 1·11 to 1·38 lakhs chiefly on account of the increase in the amount paid as school fees, which resulted from the taking over by Government of several Municipal schools. Under the heading *Miscellaneous* an increase in Contributions from Rs. 7,500 to Rs. 35,000 is due to the repayment of an advance of Rs. 27,000 made in the previous year to the Tharrawaddy District Cess Fund.

Provincial Expenditure.

174. The total expenditure for the year met out of Provincial Funds amounted to 472·05 lakhs against 471·96 lakhs in the previous year and was 20·39 lakhs in excess of the revenue for the year. The expenditure under the head of *Land Revenue* increased from 64·45 to 68·19 lakhs. Charges on account of collection were larger in consequence of the increase in the revenue. The cost of District Administration was less owing to the transfer of certain charges from this head to Land Records. There was an increase of five lakhs under the latter head partly on account of this transfer and partly in consequence of the re-organisation of the establishment. The cost of *Stamps* was less by Rs. 2,978, because a smaller supply was obtained from England. *Forest* expenditure increased from 18·37 to 19·09 lakhs as a result of the re-organisation of the subordinate establishment. Under *General Administration* the total was 13·88 as compared with 13·58 lakhs. The Staff and Household of the Lieutenant-Governor cost less in consequence of the appointment of a Private Secretary on a lower salary. The expenses of the Civil Secretariat were greater on account of increases to the salary of the Revenue Secretary and Secretary and the re-organisation of the establishment. The increase under the head of *Financial Commissioner* was due to privilege leave arrangements for the Financial Commissioner and his Secretary. The total under the head *Law and Justice—Courts of Law* was 43·90 lakhs or 1·38 lakhs in excess of the figures of the previous year. The appointment of an additional Judge for the Chief Court of Lower Burma, of an additional Judicial Commissioner of Upper Burma, and greater expenditure in the conduct of law cases and criminal prosecutions and on witness fees were the principal causes of the increase. An increase in the number of warders, the high price of food-stuffs, and

larger purchase of hospital equipments and medicines were responsible for an increased expenditure of Rs. 37,254 on *Jails*. The increase in the cost of *Police* of 7·15 lakhs was mainly in consequence of the increased expenditure rendered necessary by the re-organisation of the Police, the cost of which was borne throughout the year. Under *Ports and Pilotage* there was an increase of Rs. 1,21,187. A sum of Rs. 70,000 was paid as subsidies to Steam Boat Companies under which nothing appeared in the previous year's figures. Increases in the number and cost of crews for new launches were required and larger sums were expended in the purchase of coal and marine stores. The expenditure under *Education* rose from 17·75 to 18·84 lakhs on account of the appointment of an Assistant Director of Public Instruction, and of additions to the Inspecting staff. The re-organisation of the Rangoon College and the taking over by Government of some Municipal schools also contributed to the increase. The charges under the head *Medical* were increased from 19·49 to 21·10 lakhs. Certain expenditure which was formerly borne under the head *Political* was transferred to this head. *Political* expenditure, partly as a result of this transfer, fell from 4·18 to 4·12 lakhs. The extended operations of the Agricultural Department were responsible for the increase from 1·05 to 1·27 lakhs in the amount spent on experimental cultivation. The appointment of two Assistant Registrars of Co-operative Credit Societies raised the cost of that Department from Rs. 39,000 to Rs. 65,000.

Local Funds.

175. The District Cess Funds in Lower Burma, the District Funds in Upper Burma and the Burma Steam-Boiler Inspection Fund were formerly known as Incorporated Local Funds and other funds as Excluded Local Funds. Under the orders of the Government of India the three first-named funds were, with effect from the 1st April 1908, converted into Excluded Local Funds. The class of Incorporated Local Funds has, therefore, ceased to exist. General.

176. The number of District Cess Funds remained at 20, the same as in the previous year. The aggregate balance at credit of the Funds on the 1st April 1908 stood at Rs. 23,10,031. The receipts during the year were Rs. 28,83,500 and the expenditure Rs. 29,74,278 leaving a closing balance of Rs. 22,19,253 on the 31st March 1909, being Rs. 90,778 less than the opening balance. There was a net decrease in receipts on comparison with the previous year of Rs. 3,65,663, but this decrease is more than accounted for by the fact that in 1907-08 a sum of Rs. 4,74,000 was contributed from Provincial revenues to these funds towards the cost of public works, a grant which was discontinued in 1908-09. Under all other heads of Revenue with the exception of Land Revenue there was a substantial increase. The increase under Police was due to larger receipts from Slaughter-house licenses and Sale-proceeds of unclaimed cattle. The increase under Miscellaneous was chiefly due to larger receipts from Bazaar Stall Rents and Bazaar Daily Collections. Under Civil Works by Civil Officers the increase was chiefly due to contributions from Provincial revenues for sanitary purposes. The net increase in expenditure as compared with the previous year was Rs. 5,12,538. The increase took place in all the Major Heads of Expenditure with two exceptions Land Revenue and Police. Grants to Hospitals and Dispensaries were increased and more money was spent on measures for the suppression of plague. Larger payments were necessary on account of Conservancy and Bazaar Establishments. District Cess Funds.

177. The number of District Funds was 16 the same as in the previous year. The aggregate balance at the credit of the Funds on the 1st April 1908 was Rs. 3,64,548, the total receipts of the year amounted to Rs. 6,76,958, and the total expenditure to Rs. 6,06,024 leaving a closing balance of Rs. 4,35,482 or Rs. 70,934 more than the opening balance. There was a decrease in receipts of Rs. 23,945 as compared with the previous year, chiefly under the head of District Funds.

CHAP. V.—REVENUE AND FINANCE.

Police and due to a falling off in the amounts received on account of slaughter-house licenses in several districts. The total expenditure was Rs. 10,290 in excess of that of the previous year, principally owing to a larger outlay on Conservancy, which was, however, partly counterbalanced by a decreased expenditure on public works.

Other Local Funds.

178. The Burma Steam Boiler Inspection Fund closed with a credit balance of Rs. 47,205 on the 31st March 1909, the receipts of the year having been Rs. 51,550 and the expenditure Rs. 35,032. The total income of the seven Cantonment Funds excluding Debt heads amounted to Rs. 1,73,525 and the total expenditure to Rs. 1,92,765. The corresponding figures for 1907-08 were Rs. 2,16,760 and Rs. 1,72,123 respectively, so that in the year of report the total income shewed a decrease of Rs. 43,235 and the expenditure an increase of Rs. 20,642. One new Town Fund, Loilem, was added to the 15 in existence at the beginning of the year, thus raising the number to 16. The total income of the funds shewed a decrease of Rs. 4,520 as compared with that of the previous year, the figures being Rs. 4,61,473 for 1908-09 and Rs. 4,65,993 for 1907-08. The expenditure was more by Rs. 11,124, the total for 1908-09 being Rs. 4,38,735 and that for 1907-08 Rs. 4,27,611. There are six Port Funds maintained in connection with the six Minor Ports of Burma. These funds were solvent and their revenues were utilised for the purposes for which they were intended. The number of Pilot Funds is four. The pilotage receipts are credited to these funds from which the earnings of pilots, the cost of maintenance of pilot vessels, and other expenses are disbursed. These funds are all solvent. The receipts of the Rangoon Police Reward Fund consist of fines recovered from policemen and undisbursed rewards and amounted to Rs. 1,348 during the year. The fund is utilised in paying rewards to policemen for good conduct and Rs. 1,470 was disbursed in this way. The total income of the Educational Syndicate Fund derived mainly from contributions by Government and the Rangoon Municipality and from fees for Examinations amounted to Rs. 52,466. The balance at the end of the year was Rs. 13,832 from which, however, a sum of Rs. 17,700 invested during the year was excluded.

Road and Education Cesses.

179. No special cesses are levied in Burma for the construction and maintenance of roads and the provision of education, but the 10 per cent. cess levied on Land Revenue in Lower Burma is partly devoted to education and local public works.

Municipal Revenues.

Rangoon Municipality.

180. The Rangoon Municipality does not bank with Government and its transactions are therefore not shewn in Government accounts. The gross income for the year was Rs. 54,45,066, of which Rs. 20,59,179 may be classified as extraordinary being Rs. 11,44,000 the amount raised by way of loan during the year, and Rs. 9,15,179 realised from debt transactions. The ordinary income was, therefore, Rs. 33,85,887, that of the previous year having been Rs. 34,99,091. The ordinary receipts of 1907-08, however, included a sum of Rs. 1,72,680 which was recovered as arrears of taxes on Government buildings for the year 1906-07. If this sum be excluded the income for the year 1908-09 would be nearly Rs. 60,000 in excess of that for the previous year. Municipal land in the vicinity of the Town Hall was sold during the year and realised Rs. 81,850. The general expenditure amounted to Rs. 50,14,615 as compared with Rs. 48,87,595 in the previous year. Omitting charges for works paid for from loans, advances, deposits and other suspense accounts, the ordinary expenditure for the year was Rs. 36,14,389 as against Rs. 32,76,187 in 1907-08. This large increase was due to several causes, the payment of Rs. 1,20,304 as annuities and gratuities to retired officers, an increase of Rs. 90,618 in interest charges owing to the raising of fresh loans, the introduction of the electric lighting scheme which

increased the cost of street lighting by Rs. 85,622 and an increase of expenditure following upon the re-organisation of municipal establishments. On the other hand, Rs. 39,284 less than in the previous year was spent on drainage and plague charges decreased by Rs. 59,597. The outstanding loans on the 1st April 1908 amounted to Rs. 1,28,87,000 including Rs. 18,00,000 on account of loans for Reclamation works. On the 15th July 1908 an instalment of Rs. 57,500 of the 1887 loan of 23 lakhs was repaid. A loan of Rs. 11,44,000 was raised during the year for capital expenditure on Municipal enterprises and a loan of Rs. 9,36,000 for the Reclamation scheme. On the 31st March 1909 the outstanding liabilities including Reclamation scheme loans of Rs. 27,36,000 amounted to Rs. 1,49,09,500.

Other Municipalities.

181. With the exception of Moulmein all the 43 minor Municipalities in the Province bank with Government. Exclusive of debt accounts amounting to Rs. 3,54,481, and of the opening balance of Rs. 8,23,867 the aggregate income of all the Municipalities in the Province was Rs. 36,71,340 as compared with Rs. 33,36,901 in the previous year. The ordinary expenditure was Rs. 36,40,644 shewing an increase of Rs. 90,966 over the previous year. There was a closing balance at the end of the year of Rs. 8,83,083. Municipal rates and taxes produced Rs. 14,14,245 as compared with Rs. 13,60,810 in 1907-08. The largest increase Rs. 29,547 occurred in Akyab mainly owing to the imposition of the new water-rate. At Mandalay there was a decrease of Rs. 28,641 which was explained by decreased assessments owing to the prevalence of plague in the town. Realisations under special Acts produced Rs. 37,659 as compared with Rs. 35,037 in the previous year. The total revenue from other sources amounted to Rs. 15,87,181 as compared with Rs. 15,53,763 in 1907-08. The total amount received in the form of grants and contributions from all sources rose from Rs. 3,77,719 in the previous year to Rs. 5,71,478. Of this sum Rs. 1,91,750 was contributed by Government in aid of measures for the prevention and suppression of plague as compared with Rs. 1,48,430 contributed for the same purpose in the previous year. The imperial grant of 3 lakhs which is to be made annually for expenditure on sanitary improvements with special reference to the prevention of plague was entirely distributed during the year. The chief contributions paid to Municipal Committees from this source were Rs. 25,000 for the water-supply scheme and Rs. 15,000 for sanitary purposes to Akyab, Rs. 50,000 for drainage and the rebuilding of insanitary areas and Rs. 15,000 for improvements to the water-works to Prome, Rs. 25,000 to Minbu and Rs. 30,000 to Mônywa for water-supply schemes and Rs. 1,02,000 to Mandalay for drainage improvements. Expenditure on general administration fell from Rs. 3,47,791 in 1907-08 to Rs. 3,43,246. The amount expended on public safety also shewed a slight decrease from Rs. 2,24,385 to Rs. 2,23,886. Expenditure on conservancy rose by nearly a lakh from Rs. 6,43,721 to Rs. 7,40,271. Most of the increase was due to the completion of the new tram-line system of night conservancy at Henzada on which Rs. 83,989 were spent. According to the statistics the expenditure on medical relief was Rs. 7,32,155 as compared with Rs. 7,17,305 in 1907-08 but the figures are not trustworthy as plague charges were in some cases entered under this head. The amount expended on markets increased from Rs. 2,19,494 to Rs. 2,57,064. The expenditure on public works increased slightly in response to the partial lightening of the burden of plague expenditure resting on the Municipalites. The liabilities on account of interest amounted to Rs. 1,25,142 as compared with Rs. 1,13,846 in the previous year. The total amount of loans granted was Rs. 79,500 as compared with Rs. 2,10,000 in 1907-08.

Other Funds.

182. As in previous years only one Trust Fund, that of the Official Assignee was in existence. It does not bank with the Government and its transactions are not shewn in the Government Accounts. There were four Educational Endowment Funds, namely, the Jardine, Maung Ohn Ghine, Renaung and Copleston Funds.

CHAP. V.—REVENUE AND FINANCE.

These funds do not bank with Government treasuries and their accounts are not shewn in the Government books.

Paper Currency.

183. The circulation of notes of all denominations shewed an increase on comparison with the previous year and the total value of all the notes in circulation on the 31st March 1909 was 296·81 lakhs as compared with 259·93 lakhs on the 31st March 1908. There was no marked revival from the drop of the previous year in the circulation of notes of Rs. 100 but this was counterbalanced by the increase of over 56 per cent. in the circulation of notes of Rs. 10. There has been a steady increase year by year in the circulation of notes of this denomination which affords a sure indication that the advantages of currency notes are being increasingly realised in the Province. Another satisfactory increase was that of over 50 per cent. in the circulation of five rupee notes. The increase in the circulation of notes of the Rs. 1,000 and Rs. 10,000 denominations on the 31st March 1909 as compared with the corresponding day of the previous year was chiefly due to the fact that the Bank of Bengal, Rangoon, held a larger number of these notes which it had taken in payment of telegraphic transfers from Calcutta.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

REFERENCES—

Report on the Sanitary Administration of Burma for the year 1908.
Notes and Statistics on Hospitals and Dispensaries in Burma for the year 1908.
Report on the working of the Government Medical School, Rangoon, for the year 1908.
Report on the Lunatic Asylums in Burma for the Triennium 1906—1908.
Notes and Statistics on Vaccination in Burma for the year 1908-09.
Statistics of British India, Part V.

Births and Deaths.

Number of births and deaths.

184. The area under registration of births and deaths remained as in the previous year, and the population under registration as calculated at the Census of 1901 was, in Lower Burma 5,568,479 and in Upper Burma 2,917,501. No change was introduced into the system previously in force. The Provincial birth-rate for 1908 was 34·84, against 32·82 in 1907. The birth-rate for rural areas for the whole Province was 35·74, and for towns 28·38. The male births exceeded the female by 8,578 in rural areas, and there were 100 male births to every 93·75 female births. The male birth-rate was 18·44 and the female birth-rate 17·29. In Lower Burma there were 189,667 births, giving a birth-rate of 34·06 per mille and in Upper Burma 105,960 births, giving a birth-rate of 36·32 per mille. The male births for the whole Province exceeded the female births by 9,317 and there were 100 males born to every 93·89 females. The excess of male over female births was rather less in the towns than in the districts. The rural birth-rate for Lower Burma was 35·20 and the urban birth-rate was 26·28. In Upper Burma the rural and urban birth-rates were respectively 36·75 and 32·91. The towns of Rangoon, Moulmein and Akyab being omitted from the calculation, the birth-rate for the remaining 36 towns was 32·07, closely approximating to that for Upper Burma towns. Owing to the great excess of males over females in the population of the three large cities of Lower Burma, the birth-rates calculated on the total population of both sexes is not comparable with that calculated on the same basis for the other towns in Burma, in which the sexes are more equally represented numerically. The rural birth-rates of Upper and Lower Burma for 1908 shew an increase over those recorded in 1907 of 3·28 and 1·43. There is also an increase in the urban birth-rates for 1908 over 1907 of 1·18 for Lower Burma and ·75 for Upper Burma. The Provincial death-rate from all causes was 28·22, against 26·60 in 1907. For Lower Burma, the death-rate was 28·06 and for Upper Burma 28·52. The rural death-rates for the Province, and for Lower and Upper Burma respectively were 26·38, 25·94 and 27·21. Urban death-rates were:—Provincial 41·37, Lower Burma 42·57, and Upper Burma 38·80. The following districts returned high death-rates:—

Kyauksè (43·85), Mandalay (37·24), Kyaukpyu (33·18), Shwebo (33·03), Tharrawaddy (31·91), Pegu (30·83), Magwe (30·63) and Prome (30·34).

Low death-rates were returned by the districts noted below:—

Sagaing (18·10), Ma-ubin (18·74), Bassein (20·15), Akyab (20·73), Amherst (20·33), Tavoy (21·78), Meiktila (22·18), Pakôkku (23·38), Hanthawaddy (24·66) and Myingyan (24·77).

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

High death-rates recorded in towns were 75·90 in Zigôn, 72·77 in Prome, 71·23 in Toungoo, 62·51 in Myanaung, 62·06 in Pegu, 61·31 in Yenangyaung, 60·88 in Pyinmana, 60·67 in Wakèma, 60·43 in Taungdwingyi, 58·33 in Kyangin, 56·28 in Paungdè, 55·96 in Bassein and 55·03 in Thônzè; low death-rates were returned by Maymyo (19·60), Akyab (20·18), Kawkareik (20·67) and Sandoway (22·14). The high death-rate in the towns of Lower Burma was mainly due to plague and cholera, while that of Upper Burma towns was caused by cholera in the majority of cases, but in Pyinmana it was largely increased by plague deaths. The fever death-rate for towns in Lower Burma was 5·03 while that for Upper Burma towns was only 3·38. The death-rate of infants under 12 months for the whole Province was 208·96 per mille, an increase of 10·46 on the corresponding ratio for 1907. The Provincial rates for rural and urban areas were respectively 200·00 and 289·39. The infantile death-rate for Lower Burma was 201·58, against 182·91 in 1907; for urban and rural areas in Lower Burma the rates were 260·83 and 195·11. The urban death-rate for Lower Burma in 1907 was 247·15 being 13·68 less than in the year of report. The infantile death-rate in urban areas of Upper Burma was 338·52 and in rural areas 208·89. The urban death-rate in 1907 was 322·27 for this part of the Province. The infantile death-rate for Upper Burma as a whole was 222·17 against 227·81 in 1907.

Causes of death.

185. The total of 239,459 deaths that occurred in the Province in 1908 was distributed as follows:—

Cholera	11,911
Small-pox	1,298
Plague	6,752
Fevers	77,661
Dysentery and diarrhœa	11,808
Respiratory diseases	7,630
Suicide	155
Wounding and accident	1,472
Snake bites and wild beasts	1,451
All other causes	119,321

Of these causes deaths from cholera, dysentery and diarrhœa, respiratory diseases and "all other causes" shewed noticeable increases as compared with the returns of the previous year. Five districts in Lower Burma and three in Upper Burma suffered a heavy mortality from cholera during 1908, *viz.*, Tharrawaddy 1,107 deaths, Akyab 987, Kyaukpyu 983, Myaungmya 784, Toungoo 770, Magwe 610, Yamèthin 578 and Minbu 466. Cholera invaded the Ramree Township of the Kyaukpyu District in May, and there were outbreaks in the villages during June, July, August and September. Infection was introduced on two separate occasions from the Akyab District. The spread of infection in the island of Ramree was facilitated by the unprotected condition of the water-supply. In the Tharrawaddy District there were two distinct outbreaks of cholera. The first began in January, with a recrudescence in April. The district was free from cholera in June. The second outbreak was more severe. It commenced in July, reached its maximum in October, and continued till December. Paungdè participated in the epidemic and lost 143 lives. All districts of the Irrawaddy Division were infected with cholera during the year of report. While there were deaths from cholera in the Toungoo District during every month of the year, the disease assumed a widespread form early in July. Outbreaks of cholera occurred in all four districts of the Meiktila Division, but the epidemic was only severe in the Yamèthin and Meiktila Districts. During the year the manufacture of tabloids of quinine under the name of 'salons' was undertaken. As the result of enquiry it has been ascertained that quinine in the new form is everywhere better appreciated by the public, as being more easy to take than in the form of powders, which the Burman objects to on account of their bitter taste. The outturn of quinine in the form of 'salons' and pice powders, from the manufactory at the Rangoon Central Jail, was 195,448 'salons' and 290,446 powders of which 96,111 'salons' and 290,446 powders were distributed to Postmasters and other vendors. There were 748 deaths from small-pox in Lower Burma and 550 in Upper Burma. The only districts

returning a high mortality from this disease were Kyaukpyu and Pakôkku, the former having 402 and the latter 319. The considerable reduction in the mortality from plague was shared by all the Divisions, but the decrease in the Pegu Division was due to the relatively low mortality in Rangoon, the plague mortality in the districts having increased by 881. The total decrease in Lower Burma was 803 deaths and in Upper Burma 1,694. In Lower Burma the whole of the Arakan Division, and the districts of Tavoy and Mergui, escaped plague infection, as in previous years. In Upper Burma, Magwe was the only Division which was free from plague throughout the year. The mortality from plague in Rangoon decreased to 1,051 from 2,114 in the previous year. In the Prome, Tharrawaddy and Pegu Districts, there was a considerable increase. In Upper Burma, the greatest decrease in plague mortality was exhibited in Mandalay town which returned only 1,202 deaths against 2,540 in 1907. Shwebo and Sagaing also registered a large decrease, and Minbu which had suffered a mortality of 46 from plague in the previous year had no return of the epidemic in 1908. In some badly infected centres a considerable proportion of the population was inoculated with Haffkine's prophylactic. In Prome and Paungdè towns some 8,685 persons were inoculated during the epidemic. In the Tharrawaddy District 8,490, in Amherst 6,226, in Ma-ubin 5,333, in Bassein 4,385 and in Mandalay town 7,168 persons were operated on. The people of Rangoon, however, were unanimous in fearing the remedy more than the disease. In all 51,753 persons were inoculated in the Province. A large quantity of the Punjab rat poison was obtained from the Government of that Province, and distributed to most of the infected districts for experimental use. The results obtained have been disappointing. During the last few months of the year experiments were conducted at Maymyo by Captain Saigol, I.M.S., for the culture of Danysz's virus, and are being continued in the current year. A certain degree of success has been obtained, and it is hoped that the virus will be available in a short time for use on a large scale. Sustained efforts continued to be made in all affected or threatened localities to prevent or suppress plague.

Emigration and Immigration.

186. During 1908, 319,271 immigrants and 301,059 emigrants passed through the ports of Rangoon, Akyab, Moulmein, Kyaukpyu, Tavoy and Mergui. The number of immigrants through the port of Rangoon was 252,075 and of emigrants 227,568, leaving an excess of immigrants of 24,507; but the number of emigrants given above does not include those who left the ports of Rangoon for ports in India during the period between the 28th November and the 31st of December, the figures during that period not having been recorded.

Medical Relief.

187. On the 1st January 1908, there were 227 Hospitals and Dispensaries in the Province. During the year, four Hospitals and eight Dispensaries were opened; six institutions were closed and an outpost Military Police Hospital was converted into a Civil Hospital. The result of these changes was that at the end of the year, the total Hospitals and Dispensaries amounted to 233. Hospitals and Dispensaries.

188. In Civil Hospitals there were treated during 1908, 1,085,744 out-patients against 997,812 in 1907, and 50,274 in-patients against 45,548 in 1907. There was thus an increase of 4,726 in-patients and 87,932 out-patients. The increase was fairly uniform throughout all hospitals, but the attendance was notably large at Akyab, Kyaukpyu, Rangoon, Prome, Henzada, Moulmein, Thayetmyo, Mandalay, Shwegyin, Maymyo and Hsipaw. A satisfactory feature of the total increase of 92,658 is shewn in the better attendance of Burmese, which amounted to 57,295 including 12,991 adult females and 15,593 children. The increase in the number Attendance.

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

of Burmese female patients is satisfactory. It is no doubt partly due to the employment of Lady Doctors. Their work at Moulmein, Mandalay, Rangoon and Bassein is much appreciated by the general public. The percentage of Burmese treated in these out-patient dispensaries was 45, 53, 27 and 62 per cent. respectively of the total numbers. In addition to the numbers included in the above totals, there were amongst the Military Police 106,255 in and out-patients against 101,838 in the previous year, and in Railway Hospitals and Dispensaries there was a further number of 58,201 patients against 61,116 of the previous year. Again, in private non-aided dispensaries, a total of 11,734 patients was treated. The total patients treated by the Medical Department of the Province for 1908 amounted to 1,320,929; but this does not include a large number of patients attended by medical subordinates when on escort duty amongst hill tribes. Classification of diseases shews that increase of attendance from all causes has been fairly uniform, thus proving that the increment has not been due to the sudden appearance of special diseases but to increasing popularity of hospitals. In regard to tubercular diseases, there has been not an increase but a decrease. The number of surgical operations performed increased from 27,206 in 1907 to 31,076 in 1908. There were in 1908, 476 operations on the eye and its appendages against 337 in 1907. An eye department was organized in the General Hospital, Rangoon, and in the Princess of Wales' Ophthalmic Wards in Mandalay. There was an increase of 21 operations by various methods for calculus of the bladder. Obstetric operations shewed a satisfactory increase of 128 cases. The number of "injuries" received in Burma from assaults is usually large. As far as statistics could be collected, there was a total of 80,291 "injuries" of which 13,788 were matters for police enquiry.

Expenditure.

189. The total expenditure on hospitals and dispensaries in the Province amounted during the year 1908 to Rs. 20,64,964 against Rs. 22,47,407 in 1907. Though there is a decrease in the total expenditure of the Province by nearly two lakhs, which is chiefly due to less expenditure on the New General Hospital Buildings at Rangoon, yet there is a steady increase under all other heads of expenditure except under "Bazaar Medicines" and "Miscellaneous Charges." This is accounted for by the opening of new hospitals, entertainment of additional establishment, and increments to medical subordinates and menial staff. The Government contribution decreased from Rs. 16,91,987 or 75·29 per cent. in 1907 to Rs. 14,11,648 or 68·36 per cent. of the total expenditure in 1908, while the contribution from Local Funds, including Municipalities, increased from Rs. 4,54,258 or 20·21 per cent. to Rs. 5,65,565 or 27·39 per cent. Subscriptions and donations increased from Rs. 36,725 in 1907 to Rs. 46,829 in 1908; but, there was a fall in the closing balance from Rs. 55,877 to Rs. 52,594. This balance excludes a sum of Rs. 18,750 held under investment.

Miscellaneous.

190. The scheme inaugurated in 1907 for the training of Results-System Midwives was in operation. Electro-therapeutic plant intended to be run by gas engines, in connection with gas plant for four operation rooms, arrived during 1908; but, owing to the non-completion of the operation rooms concerned, it has not yet been possible to erect more than one set at Rangoon. The use of Sir Lauder Brunton's snake-bite lancets with permanganate of potash has been received with favour throughout the Province. There was no change in the number of Commissioned Medical Officers. Three Civil Assistant Surgeons were, however, added to the cadre, and two additional Lady Doctors were entertained. The sanctioned establishment of the Military Assistant Surgeons remained unchanged. The sanctioned establishment of Hospital Assistants, including a reserve of 25 per cent. amounts to 336. At the end of the year the cadre was 37 short of its strength, in spite of the adoption of all reasonable suggestions for inducing men to join the establishment.

Government Medical School.

191. In the Burma Government Medical School at Rangoon there were under training 13 students (10 public and 3 private) all in one class. The future success

of this school practically depends upon whether or not the Hospital Assistant Establishment in Burma is rendered sufficiently attractive by the grant of better pay and prospects than at present. Burmans will enrol themselves if the conditions of service are sufficiently good.

Lunatic Asylums.

192. During the year, the accommodation space was increased at the Lunatic Asylum, Rangoon, so as to shelter 448 inmates. This together with accommodation for 107 patients available at Minbu provides for an aggregate of 555 patients only. At the beginning of 1908, there were 532 lunatics under State protection (456 at Rangoon and 76 at Minbu), while at the close of the year the number increased to 587 inmates (476 at Rangoon and 111 at Minbu). The overcrowding has specially occurred amongst criminal male lunatics; thus, on the last day of 1908, the number of patients at both the Asylums was in excess of the calculated space available by 32. The daily average strength during the year was 566·14 against 542·10 in 1907. In Rangoon, the mortality reckoned upon the percentage of population of the Asylum decreased from 10·01 per cent. in 1907 to 8·62 in 1908, but, in the Rangoon and the Minbu Asylums taken together, the total mortality of the Province was 7·42 per cent. of daily average strength of lunatics, the lowest of all the Asylums in India. In Rangoon, there were 12 cases of local injury of a minor nature against 15 in 1907. No injuries have occurred in the Minbu Asylum since its opening. The adoption of the "card system of surveillance" in the general observation of patients has been of much practical value and has worked satisfactorily. Expenditure on both the Asylums amounted to Rs. 90,462. The average cost of maintaining a lunatic fell from Rs. 166 in 1907 to Rs. 160 in 1908. Under manufactures, there was a nett profit of Rs. 18,745 during the year as against Rs. 17,962 in the previous year.

Sanitation.

Expenditure.

193. The Municipal Funds of the Province, exclusive of that of Rangoon, had a total income for the year 1908 of Rs. 33,33,574 and a total expenditure on Sanitary works of Rs. 12,84,343 amounting to 38·53 per cent. of income, against 44·57 per cent. in 1907. The expenditure on Water-supply, Conservancy, Drainage and "other Sanitary Works" amounted to 6·43, 17·73, 1·15 and 13·20 per cent. of income respectively against 4·98, 20·84, 1·33 and 17·42 per cent. in 1907. Thus the expenditure on Water-supply has been somewhat greater in 1908 and that on Conservancy, Drainage, and "other Sanitary Works" less than in the previous year. District Funds and District Cess Funds spent 7·88 per cent. of income on Sanitary works during the year of which 1·65 was on Water-supply, 2·05 on Conservancy and 1·06 on Drainage. Non-Municipal Town Funds spent 45·18 per cent. of income on Sanitary works including ·76 per cent. allotted to Water-supply against ·60 in 1907, 21·02 per cent. on Conservancy, 0·78 on Drainage and 22·61 on "Other Sanitary Works." The heavy charges on account of plague expenditure which had to be borne by many Municipal, Town and District Funds have left little for the improvement of Water-supply and Drainage. The Local Government have made liberal grants in aid of Sanitary works to many of the larger towns, including a grant of Rs. 50,000 to the Prome Municipal Fund in aid of a scheme for the Sanitary improvement of congested areas of the town as a plague preventive measure, Rs. 50,000 to Mandalay for a similar purpose, and Rs. 52,000 to Mandalay for the regrading of the channel of the Shwetachaung Canal.

Water-supply.

194. Several schemes for the water-supply of towns have been prepared during the year by the Sanitary Engineer, at the request of Local Bodies and are now in progress or under revision. The several alternative projects for the water-supply of Mandalay Town were under discussion, and revised estimates have been prepared but as yet a final decision has not been arrived at. In Toungoo a tube well was sunk but no further progress was made in arranging for the determination of the quantity of water available for distribution or for supplying it to the public.

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

Here the difficulty appears to have been a lack of pumping machinery, and expert assistance. The Akyab Water-Works Scheme approached completion during the year 1908. The Moulmein Water-Works continued to supply good water to the town. At Prome a temporary breakdown in the pumping machinery at the water-works resulted in a serious outbreak of cholera among the population of the town from the use of the river water, taken from a point at which it was contaminated. The pumps were put in order and are working satisfactorily. Attention is now being given to a scheme for providing a public water-supply to some of the larger towns in the Tharrawaddy District by means of rain water tanks. A similar scheme is in preparation for Kyaiklat and other towns in the Irrawaddy Division. At Wuntho a deep tube well yielding an abundant supply of good water has been sunk. The experiments made to obtain water from an infiltration gallery at Shwebo ended in failure. A similar scheme for the supply of Mônywa has been initiated and promises better results. The water-supply system of the Minbu Jail, which is obtained from a filtration gallery, is to be extended to the town.

Conservancy.

195. Progress has been made with the Henzada Conservancy Scheme. Schemes on the same lines are in preparation for Kyaiklat, Pyapôn, Wakèma and other towns in the Delta. A conservancy system modelled on that in use at Meiktila has been adopted at Minbu and Katha. Experiments have been carried out in several towns for the destruction of garbage and night-soil by cheap incinerators. Such incinerators have been erected at Maymyo, Mandalay, Myaungmya, Thayetmyo, Myitkyina, Pyinmana, Yamèthin and Bassein, and others are in course of construction elsewhere. It is too early yet to decide on the extent of their utility, which will vary in different localities with the degree of rainfall, and the available supply of cheap fuel. There is, however, no doubt that the system provides a cheap and sanitary method for the disposal of night-soil and refuse, and that if properly worked, it should not be productive of nuisance or of complaints from the public.

Sanitary Board.

196. The Provincial Sanitary Board held one meeting at Rangoon during the year. Drainage and Conservancy Schemes of Kyaiklat and papers regarding the improvement of the Sanitary services in India, the functions of the Sanitary Board and experiments with floats taken at Mergui, were considered.

Vaccination.

197. Forty-eight Native Superintendents and two hundred and fifty-nine Vaccinators were employed during the year 1908-09 as compared with 44 Native Superintendents of Vaccination and 253 Vaccinators in the previous year. Exclusive of dispensary operations, the total work performed in the Province was 382,326 operations which is less by 5,076 than in the previous year. But the total number of operations on infants found successful and also the total number of persons successfully vaccinated over 6 years of age was larger than in the previous year. This falling off in the number of operations is due to the unsettled condition of the people due to epidemics of plague and cholera in some districts, and to the apathy and passive opposition by the people and their preference for inoculation in other districts. The total expenditure on establishment, travelling allowances and contingencies, during the year 1908-09 was Rs. 1,49,847-3-4 against Rs. 1,38,604-7-4 in 1907-08. The increase in the cost of the Department is mainly due to the appointment of additional Native Superintendents of Vaccination, and of permanent and temporary Vaccinators in some districts. The average cost of each successful operation was Re. 0-7-5 in 1908-09 against Re. 0-6-11 in the previous year. The average successful results in primary vaccination for the whole Province was 93·58 per cent. of operations. This is higher than in any previous year and compares favourably with 91·78 of 1907-08. The percentage of operations verified by the Deputy Sanitary Commissioner and the Civil Surgeons in the two years 1908-09 and 1907-08 respectively was in primary cases 9·79 and

13·51 and in re-vaccinations 21·17 and 23·09. Native Superintendents of Vaccination verified 40·84 per cent. of primary operations and 39·75 of re-vaccinations against 40·05 and 44·85 in the previous year. The Vaccine Lymph used throughout the whole Province with the exception of the Rangoon Municipality was supplied from the Meiktila Vaccine Depôt. The lymph was throughout the year of excellent quality, and a percentage success of 93·58 for the whole Province was obtained in primary operations. The greater part of the lymph was issued in the form of glycerine emulsion which was found to give better results than the other preparations. Inoculation is still practised in certain districts especially in the Arakan Division and the Irrawaddy and Pegu Divisions. An Act for the prevention of inoculation and the licensing of Vaccinators became law during the year. The Act is to be applied gradually commencing with the Hanthawaddy and Pegu Districts. An Act for the improvement of Vaccination in Rangoon town and port has recently received the approval of the Governor-General, and came into force on the 24th of May 1909. It provides for the compulsory vaccination of all persons coming to Burma to work as labourers who are unprotected from small-pox, and gives additional powers to the Municipal Committee for vaccinating the occupants of factories and lodging houses.

CHAPTER VII.

INSTRUCTION.

REFERENCES—

Report on Public Instruction in Burma for the year 1908-09.
Report on the Insein Reformatory School for the year 1908.
Statistics of British India, Parts VI and VII.

General System of Public Instruction.

See paragraphs 209 to 242 of the Report on the Administration of Burma for the year 1907-08.

Education.

Number of schools and scholars and expenditure.

198. The number of colleges and schools of all descriptions during the year ending March 1909 was 23,117. These were attended by 433,211 pupils of whom 74,582 were girls. Public institutions numbered 6,881 and included 262,986 pupils. Private institutions which numbered 16,236 with 170,225 pupils were all of an elementary kind and included 94 girls' schools. When compared with those of the previous year, the returns for public and private institutions shew an increase of 3 per cent. as regards number and 2 per cent. as regards attendance. The percentage of male scholars to the male school-going population now stands at 44·76 against 44·12 in the previous year : that of girls to the female school-going population is now 9·66 against 9·10 in 1907-08. The total expenditure on education rose from Rs. 39,31,591 to Rs. 39,31,783. About one-half of the amount was met from Provincial Funds, about one-third from fees and the balance from Municipal and Local Funds and Contributions from Private Sources. Provincial Funds provided 17·45 lakhs for education as compared with 18·79 lakhs in 1907-08. Of this sum over 4½ lakhs were spent on Government schools, a little over 7 lakhs on Aided schools and Rs. 63,989 on District Fund and Municipal Institutions. An increase is shewn in the receipts from Fees, *viz.*, 10·32 lakhs as against 9·71 lakhs last year and from 'Other sources,' *viz.*, 4·48 lakhs as against 4·36 lakhs in 1907-08. Expenditure from all sources on Buildings and Furniture amounted to 2·58 lakhs as compared with 5·25 lakhs last year and charges for Direction and Inspection which are almost entirely paid by Government rose from 3·64 to 3·91 lakhs.

Primary Education.

199. The term Primary School includes schools teaching English as well as purely Vernacular schools. The total number of these schools shews an increase of 3 per cent., but in this connection it should be noticed that for purposes of calculating attendance the primary departments of Secondary schools are included under the head of Secondary schools and that the figures under this head exaggerate while those under the head "Primary" minimize the actual figures. The total figures for pupils in primary stages in boys' schools secondary and primary (exclusive of private institutions) shew an increase of 10,465 pupils. The bulk of this increase has taken place in the Pegu, Irrawaddy and Arakan Divisions and in the Southern Shan States. Those for girls shew an increase of 2,791 pupils. Anglo-Vernacular schools have increased by 3. The total number of pupils in the primary stages of instruction in all schools was 248,255 compared with 234,999 in 1907-08, an increase of 6 per cent. The figures are distributed as follows :—

Pupils in Primary schools	192,293
Pupils in Primary Departments of Secondary schools ...	55,962
Total ...	248,255

Four Anglo-Vernacular Primary schools are managed by Government and 23 are aided. Of Vernacular schools 10 are under Government management as against 14 in 1907-08. An important reform in the teaching of English in the Primary Departments of Anglo-Vernacular schools was introduced during the year by which English is taught in the first three standards colloquially only, and the teaching of English reading and writing is postponed to the fourth standard.

The total expenditure on Primary education including the cost of the Primary Departments of Secondary schools was Rs. 13,57,005 against Rs. 12,22,252 last year and of this sum Rs. 5,03,064 came from Provincial Funds and Rs. 3,07,846 from District Funds.

Secondary Education.

200. Secondary schools increased by 12 per cent. during the year. An analysis of the detailed figures for both English and Vernacular secondary boys' schools shews that of the former class we have 20 High and 74 Middle institutions with 20,803 scholars and of the latter 11 High and 572 Middle with 40,162 scholars. The pupils are distributed thus through the various departments—

		High Department.	Middle.	Primary.
Secondary Boys' Schools	English ...	608	5,486	14,709
	Vernacular ..	38	4,890	35,234

A comparison with last year's figures shews that in the Middle and High stages of English boys' schools there has been a slight decrease and a slight increase in the primary stages.

In Vernacular Secondary schools there is an increase in both primary and middle stages while the figure in the High Department remains practically the same. There are now 11 Vernacular High schools with 1,493 pupils as compared with 10 schools and 1,521 pupils in 1907-08. Government Anglo-Vernacular schools increased from 14 to 17 owing to the taking over of three Municipal schools. Municipal Anglo-Vernacular schools now number 13 as compared with 16 last year, while aided Anglo-Vernacular schools increased from 61 to 64. The numbers of Anglo-Vernacular High schools are as follows:—Government 6, Municipal 3, Aided 11; of Middle schools—Government 11, Municipal 10, Aided 53. There was a large increase in the number of passes by the Entrance Examination, the total rising from 164 to 244: out of this only six were girls. Only five pupils passed the Vernacular Ninth Standard, a number similar to that of last year. This figure does not include Normal Students of whom 13 passed.

In the Anglo-Vernacular Eighth Standard Examination 288 pupils were presented and 218 passed as compared with 336 and 285, respectively, last year. In the Vernacular Eighth Standard Examination 40 appeared and 18 passed and 14 Normal Students were successful. The passes in the Middle School Examination in Anglo-Vernacular schools increased by 11 per cent. and in Vernacular by 13 per cent. The total expenditure on Secondary schools rose from 14·84 lakhs to 16·25 lakhs, of which nearly $5\frac{1}{2}$ lakhs came from Provincial Funds and over 6 lakhs from Fees as compared with 5 lakhs and $5\frac{1}{2}$ lakhs, respectively, last year.

Collegiate Education.

201. There are two Colleges in Burma: the Government College and the Baptist College the former teaching the Arts Course up to the B. A. Standard while the latter taught up to the I. A. Standard only during the year of report, though it has since been affiliated up to the B.A. Standard in certain subjects. The total attendance in the Government College was 128 or 13 more than last year: 11 students appeared for the B. A. Examination and 9 passed; 49 appeared for the F. A. and I. A. Examinations and 26 passed, 8 in the first and 15 in the second division. The Baptist College had 27 students on the roll, 8 candidates were presented for the F. A. examination of whom 3 passed. The total expenditure on Collegiate education has decreased by 7 per cent. and is now Rs. 92,918, a decrease caused by the reduction of Municipal rates and taxes. Provincial Revenues contribute about Rs. 58,000, a decrease of 13 per cent.

CHAP. VII. —INSTRUCTION. Technical Education.

202. The Government School of Engineering, Insein, had 82 pupils on the roll as against 90 in 1907-08: of this total Upper Subordinate students furnish 42 and Lower Subordinate 39. No pupils joined the Technical High school and only one attended the Draughtsman classes. Less than half the total number of students are natives of Burma. Other Technical schools exist at Rangoon and Toungoo—the subjects taught including printing, weaving, book-binding and lace-making. A certain amount of technical instruction is given in ordinary schools. At the Insein Reformatory, tinsmithy, carpentry, canework and boot-making are taught.

Training Schools.

203. The new regulations for Normal Schools came into force from January 1st, 1908. The literary work for the Middle School Certificate is more concentrated than formerly. The Primary Certificate is not now awarded on a special examination, but on that of the Middle School Certificate, a lower percentage being required. The High School Certificate requires a much higher qualification than formerly. The total number of male and female students in attendance during the year was 340 (of whom 87 were women) as against 466 (including 98 women) in the previous year, a decrease even greater than that noted last year when the number fell from 542 to 466. Of the 253 men 135 were Anglo-Vernacular and the rest Vernacular students. Of the women 42 were Anglo-Vernacular and 45 Vernacular. The number of Government Normal schools is 5, of which one (at Rangoon) comprises only European and Anglo-Vernacular students, two (at Toungoo and Akyab) are for Vernacular students only, while the rest admit Europeans, Anglo-Vernacular and Vernacular students alike. Aided Normal schools number seven, three for masters and four for mistresses. There are 150 students in aided schools as against 190 in Government institutions. Taking Normal students and outside candidates together the following is the list of presentation and passes under the various grades:—

	Presented.	Passed.
Primary Vernacular	877	98
Primary Anglo-Vernacular	33	10
Secondary Vernacular	371	74
Secondary Anglo-Vernacular	87	64
High Anglo-Vernacular	19	14

Expenditure on Normal schools is borne by Provincial Revenues and 'Other Sources.' The total cost was Rs. 1,36,037 representing an increase of 11 per cent. and of this Rs. 1,21,521 was met from Provincial Funds.

European Education.

204. The total number of European pupils in European schools was 2,798 as compared with 2,193 last year while the number of schools has increased from 18 to 24. Of the total 2,798, 1,329 are boys and 1,469 girls. There are 21 Secondary and 3 Primary European schools and of the Secondary 12 have High Departments: 337 pupils attending European schools were classed as non-Europeans as compared with 141 in the previous year. Of the 3,135 pupils returned as in European schools 2,344 were in the Primary Department, 675 in the Middle Department, and 116 in the High Department: of the latter 51 were boys and 65 girls, a rise of 27 per cent. and a fall of 12 per cent., respectively.

The total expenditure on European education fell from Rs. 3,45,001 to Rs. 3,30,842 and the Government share of this expenditure from Rs. 1,68,105 to Rs. 1,61,652. Scholarships have increased from Rs. 5,097 to Rs. 8,758. Expenditure on European schools (exclusive of buildings, scholarships, etc.), has increased from Rs. 2,02,411 to Rs. 2,51,750, an increase of 24 per cent. In 1907-08 Provincial Funds contributed Rs. 93,636, in the year of report this increased to Rs. 1,12,488. Europeans still attend Anglo-Vernacular schools to the number of 590 (118 girls and 472 boys). This figure, however, is considerably less than in former years owing to the opening of no less than four separate departments for Europeans, *viz.*, St. Paul's, Rangoon, St. Patrick's, Moulmein, St. Anne's, Akyab, and the Convent, Maymyo, and to the conversion

of two Anglo-Vernacular schools (*viz.*, St. Joseph's, Bassein, and the Cantonment School, Moulmein) into European Schools. CHAP. VII.—INSTRUCTION.

Education of special classes.

205. The total number of Mahomedans under instruction shews an increase of 2,245 and now stands at 11,783. The number in public institutions is 7,901, an increase of 1,171 over last year's figures. Only 8, however, attended Arts Colleges: 13 passed the Matriculation, 266 the Middle School Examination and 846 the Upper Primary Test, a distinct improvement on last year. The increase in private schools is 30 and in public schools 8. Karens maintained 12 Anglo-Vernacular and 870 Vernacular schools, the latter shewing an increase of 2 per cent.; a remarkable increase has occurred among the Taungthus who have now 44 schools with 908 pupils against 239 pupils in 9 schools in the previous year.

Tamils and Telegus maintained 11 Anglo-Vernacular schools with 1,625 pupils. In the Shan States the Inthas possess 32 schools with 1,020 pupils, and the Danus have 80 schools with 1,137 scholars. For Chins 23 schools with 457 pupils are now shewn against 16 schools with 375 pupils last year. Talaings maintained 72 public schools with an attendance of 3,227. There were two Chinese schools in the Province, but the Government Anglo-Chinese school at Bhamo was closed shortly after the end of the year of report for lack of support. There are now 14 Kachin public schools, a decrease of one. Palaungs and Manipuris had 42 schools.

Female Education.

206. The total number of girls in institutions of all kinds public and private was 74,582 of whom 70,358 were in public institutions of which total over 51,000 were in boys' schools. One girl in every 10 of school-going age is attending school as compared with 1 in 11 in 1907-08. The largest number of girls attending public schools is to be found in the Pegu Division. Seven attended Arts Colleges and 87 Normal schools. In Vernacular schools very few girls pass beyond the primary stage. Government manage four Vernacular girls' schools, with a total attendance of 299; all other girls' schools are under aided management. For the Matriculation of March 1909, 7 girls were presented and 6 passed. Seventeen girls out of 31 passed the European High School Final Examination, 85 the Anglo-Vernacular Seventh Standard, none the Vernacular Ninth Standard, 6 the Vernacular Seventh, 330 the Anglo-Vernacular Fourth and 879 the Vernacular Fourth Standard Examinations. There was an increase of one Anglo-Vernacular girls' school and 131 pupils, a rise of 4 per cent., on the Vernacular side there was an increase of 83 schools and 2,613 pupils. Of the girls in public institutions 68,559 were in Primary Standards, 1,116 in the Middle stage and 73 in the High school stage representing an increase in the Primary and Middle but a fall of 25 per cent. in the High stage. The total expenditure on Girls' Vernacular schools was Rs. 95,370 and in Girls' Anglo-Vernacular schools Rs. 2,38,654. The cost of Anglo-Vernacular Secondary schools has fallen by Rs. 2,048 and that of Primary schools by Rs. 3,271. The total amount of contributions from Local and Municipal Funds rose from Rs. 65,893 to Rs. 69,145. Nine per cent. of the total direct expenditure from public funds on education was spent on girls' schools as compared with 11·5 per cent. in 1907-08.

Insein Reformatory School.

207. The total number of boys confined in the Insein Reformatory School at the end of the year was 97, 17 more than in 1907. There were 39 admissions and 22 discharges. Of the 97 boys, 70 were Buddhists, 18 were Hindus and 9 Mahomedans. Of the 39 boys admitted 26 were illiterate. There are six literary standards and of 80 boys presented for examination 76 passed. In technical subjects (in which instruction reaches the Seventh Standard) 40 boys were examined and all passed. The reports received from Deputy Inspectors regarding boys who have left the school are on the whole satisfactory. The net expenditure on the school amounted to Rs. 13,247 as compared with Rs. 12,253 in the previous year. The profit on the Manufacture Department was Rs, 1,119-11-5. A scheme for the improvement of this school is now under preparation.

Literature and the Press.

CHAP. VII.—INSTRUCTION.

Publications registered.

208. The total number of publications registered was 221 as against 171 registered during the previous year, an increase of 50. Of the total number 203 were written in Pâli, Burmese, or both combined. Of the remaining 18, six were written in English and Burmese, three in English, two in Sgau-Karen, one in Shan and English, one in English and Pâli, one in Kachin and English, one in Talaing and English, one in Kachin, one in Urdu and one in Tamil. Sixty-eight works were devoted to Drama, eighty-three to Religion and twenty-nine are classified as Miscellaneous. The classification of books under the head of Drama is faulty, model songs, love-letters, and old ballads being included. The plays as a whole are disappointing, not so much from any non-observance of the 'unities,' as from a lack of originality. At the present day Burmese Drama has all the faults and crudities of the Mediæval 'Interlude.' No original work of fiction was produced during the year, but three translations, one of selections from the 'Arabian Nights', and the other two of Missionary handbooks, were published. Under the heading of Language the most important contribution was a Kachin Dictionary written by the Rev. O. Hanson, the result of sixteen years' continuous labour and the first serious attempt to give a full and complete account of the Kachin language; as the first printed work on Kachin appeared little more than ten years ago, the author has been compelled to rely mainly on his personal investigation among the natives. Various treatises on diseases and their treatment in Pâli and Burmese appeared during the year. The method of the majority of such works may be illustrated by a short review of the Narathuki and Angavijjha Kyan by Saya Mya. The first part deals with a system of treatment for diseases based on the theory that certain plants and seasons have varying influences on human life; tables for calculating the periods of planetary influence and minute details for the diagnosis of diseases are also included. The second part of the book deals with applied astrology, rhymed maxims being added to help calculation. A system of treating disease is also explained by which medicine and diet are prescribed according to the patient's name. The treatment is based on the theory that all things which have names either agree or disagree with one another in accordance with the particular letters of the alphabet which make up their names. The 'system' may also be applied to business speculation, horse-racing, and weddings. The entry of greatest interest under the heading 'Miscellaneous' is the diary of the late Kinwun Mingyi in two volumes of which it is to be hoped that an English translation will be published. The diary is a record of the author's visit to England in 1872 whither he was sent as head of a special mission by King Mindôn Min of Burma. Despite the minute descriptions given the book is somewhat disappointing owing to lack of comment and criticism. It is in the main merely a record of what the author did, saw, and heard. The style is somewhat heavy and monotonous, a fault which is perhaps pardonable when we consider the nature of the work which was probably written in haste at the end of long and tiring days. Only four works are classified under the head of Poetry, of which the most noteworthy is the Patacari Pyo Thit Hnin Vatthu by Saya Taing, a clever attempt to imitate and revive the spirit of old Burmese poetry which, unfortunately, seems to be fast dying out. The author appears to be a talented man and a poet of no mean order. At times a too close imitation of the classical poets' style and stock phrases is apparent, but despite this failing, his verses, which tell the story of the famous Buddhist Saint Patacari, are of no mean order. Out of 221 books published in 1908 no less than 83 were devoted to religious subjects. Many of these works would be more accurately described as pamphlets. Commentaries on the Vinaya, treatises on the Beatitudes and stories of the Buddha are the topics most commonly treated. The solitary historical work of the year was a translation of a history of Turkey by Maung Myit and Maung Mya. It consists of disjointed notes on Mahomedan activity in Turkey, Persia, Afghanistan, Egypt, Morocco and India, and is intended for the use of children of mixed Indo-Burmese parentage who have no opportunity of studying Mahomedan literature.

Presses, Newspapers and Periodicals.

209. The number of presses at work during the year fell from 86 to 81. In Moulmein the number was only six as compared with fourteen in the previous year while in Rangoon there was an increase from 35 to 38. The number of newspapers published was 42 and the languages—English (23), Burmese (12), Sgau-Karen (4), Karen (1), Chinese (1), and Gujerati (1). There were seven daily newspapers, four in English, two in Burmese and one in Chinese. With the exception of an English paper the "Upper Burma Gazette" published in Mandalay, all of these appeared in Rangoon. The greater number of the periodicals are the fruits of Missionary enterprise and naturally deal with religious and educational matters. The only new venture during the year was a monthly magazine in Urdu entitled "The Unification of the Religions of the World."

Literary Societies.

See paragraphs 487 to 489 of the Report on the Administration of Burma for the year 1901-02 and paragraph 282 of the Report on the Administration of Burma for the year 1904-05.

Arts and Sciences.

210. The Provincial Art Handicraft Exhibition was held during the year at Rangoon, and another Exhibition on the same lines at Bassein. There was no falling off in the number of exhibits at the Provincial Art Handicraft competition at Rangoon and the out-stations were again well represented. The standard of excellence in the silver-work section was maintained except in the Statuette class. Some of the elder competitors were not sufficiently careful about proportion and finish but good progress was made amongst the second grade artizans. A great advance was shewn in the ivory competitions, the scroll work being very good while keen interest was taken in the figure subject of a Burmese girl bathing. After an interval of many years, prizes were offered to goldsmiths for jewellery. The old filigree patterns have disappeared and fashion now declares for solid carved gold. The wood-carving has for many years been disappointing and for this the patrons are to a great extent responsible. It requires a very severe taste to suppress the exuberant vitality of a Burmese wood-carver, whose work is generally made for the outside decoration of buildings. Some beautiful work has occasionally been done in low relief on boxes and picture frames but it is difficult to persuade the men to exercise restraint when entering for a competition. It matters not how simple the subjects may be the artists introduce complicated carving in very high relief to shew their skill.

CHAPTER VIII.

ARCHÆOLOGY.

REFERENCE—

Report of the Superintendent, Archæological Survey, Burma, for the year 1908-09.

211. Draft rules for the control of excavation in specified areas in Burma under sections 20 and 23 of the Ancient Monuments Preservation Act were published for criticism during the year. No suggestions were received from the public and the rules were issued after the close of the year. Action was also taken in connection with the notification of monuments as protected under section 3 of the Act and the prohibition of the removal of sculptures, carvings and other like objects without the written permission of the Deputy Commissioner.

Further progress was made with the architectural survey of the Palace at Mandalay which it is expected will be completed in another year. Excavations were continued at the site of old Prome where a Parinirvāna statue of the Buddha and a building which was apparently used as a family vault were found. Six votive tablets and two estampages were sent to the Government Epigraphist at Simla for decipherment and translation. A catalogue of the coins in the Phayre Provincial Museum was completed during the year.

The expenditure on archæological works was Rs. 18,000 only as compared with Rs. 68,000 in 1907-08 and was devoted mainly to the conservation of buildings, nine of which were added to the list of buildings conserved by the Public Works Department. The most notable of these were the Taungthaman Kyauktawgyi Pagoda at Amarapura, built in 1847 A. D. by King Pagan who took as his model the Ananda Pagoda at Pagan; and the Nanpaya Temple at Pagan erected in 1059 A. D. by Manuha, the last king of the Talaings, and probably the best specimen of stone architecture in the Province. The Shwebo Museum, designed to contain the relics found in the relic-chamber of the Shwebawgyun Pagoda which was built in 1763 A. D. by King Naungdawgyi, the eldest son of Alaungpaya, was nearly completed at the close of the year. Sanction was accorded to the proposal to offer a scholarship annually for the purpose of training students in Burma for archæological work. The desirability of instituting such a scholarship had been recognised for some time but until recently there were insufficient facilities for the study of Pâli, and without a knowledge of Pâli a course of instruction in archæology in Burma would have been of little value.

CHAPTER IX.

MISCELLANEOUS.

REFERENCES—

Report of the Chemical Examiner and Bacteriologist to the Government of Burma for the year 1908.
Statistics of British India, Part VI.

Ecclesiastical Jurisdiction

See paragraphs 492 and 493 of the Report on the Administration of Burma for the year 1901-02.

Ecclesiastical.

212. The Bishop of Rangoon was absent on sick leave from the Province during the whole of the year. The Venerable the Archdeacon of Rangoon and Bishop's Commissary held charge of the Diocese till March, when he proceeded on furlough and made over charge to the Rev. J. H. Collins, Cathedral Chaplain. Churches were built during the year at Mogôk and Pakôkku and begun at Myitkyina and Pyinmana. The commencement of the Government Church at Maymyo was unavoidably delayed.

Stationery.

213. The bulk of the paper used for official purposes continued to be supplied by the Controller of Stationery, Calcutta, from the Indian Mills. The cost of stationery supplied to General Departments and Presses in Burma during the year amounted to Rs. 1,40,398 and Rs. 2,74,693 respectively, shewing increases of Rs. 17,456 in the case of General Departments and of Rs. 30,941 in the case of Government Presses as compared with the previous year.

Chemical Examiner and Bacteriologist.

214. The number of articles examined in the Medico-legal Department increased from 989 in 1907 to 1,267 in 1908. In the General Department 6,007 articles were examined during the year, an increase of 621 over the number in 1907. The increase in numbers was due chiefly to examination of cocaine, as the Civil and Excise Departments required that every bottle and every packet of this drug should be individually tested. Three hundred and four samples of water were examined. One hundred and thirty-six were found to be unfit for drinking and 72 of only fair quality. Major Windsor, I.M.S., Chemical Examiner and Bacteriologist, has devoted considerable attention to the perfection of tests for the examination of seminal stains and the application of his methods in Medico-legal cases has led to a great improvement in results.

The number of specimens and articles examined bacteriologically was 795, an increase of 153 over the number of the previous year. A large proportion of the samples of water examined shewed signs of contamination from animal excreta.

Printed by order of the Government of Burma.

G. B. C. P. O.—No. 649, C. Secy., 9(a) 18-12-1909—570—R. W.

REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR

1909-10

RANGOON
OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA
1911

LIST OF AGENTS

FOR THE

SALE OF GOVERNMENT PUBLICATIONS.

IN INDIA:

THACKER, SPINK & Co., Calcutta.
W. NEWMAN & Co., Calcutta.
THACKER & Co., Bombay.
HIGGINBOTHAM & Co., Madras.
PROPRIETOR, HANTHAWADDY PRESS, Rangoon.
SUPERINTENDENT, AMERICAN BAPTIST MISSION PRESS, Rangoon.

IN ENGLAND:

E. A. ARNOLD, 41 and 43, Maddox Street, Bond Street, W. London.
HENRY S. KING & Co., 65, Cornhill, E.C., London.
CONSTABLE & Co., 10, Orange Street, Leicester Square, W. C.
KEGAN PAUL, TRENCH, TRÜBNER & Co., 43, Gerrard Street, Soho, London, W.
BERNARD QUARITCH, 11, Grafton Street, New Bond Street, W.
P. S. KING & SON, 2 & 4, Great Smith Street, Westminster, London, W. S.
GRINDLAY & Co., 54, Parliament Street, S. W.
T. FISHER UNWIN, 1, Adelphi Terrace, London, W.C.
B. H. BLACKWELL, 50 & 51, Broad Street, Oxford.
DEIGHTON BELL & Co., Cambridge.
W. THACKER & Co., 2, Creed Lane, London, E. C.
LUZAC & Co., 46, Great Russell Street, London, W. C.

ON THE CONTINENT:

R. FRIEDLANDER & SOHN, 11, Carlstrasse, Berlin, Germany.
OTTO HARRASSOWITZ, Leipzig, Germany.
KARL W. HIERSEMANN, Leipzig, Germany.
ERNEST LEROUX, 28, Rue Bonaparte, Paris, France.
MARTINUS NIJHOFF, The Hague, Holland.
RUDOLF HAUPT, 1, Dorrientrasse, Leipzig, Germany.

The maximum length of the Summary is from 20 to 30 pages, and of Part II 150 pages.]

TABLE OF CONTENTS.

REPORT ON THE ADMINISTRATION OF BURMA FOR THE YEAR 1909-10.

PART I.

GENERAL SUMMARY.

	PARA.	PAGE
(1) The Administration; The Frontier States; and the People.		
Changes in the Administration	1	i
Frontier affairs	2	*ib.*
The Shan States and Karenni	3	ii
The Chin Hills	4	*ib.*
The Kachin Hills	5	*ib.*
Condition of the People	6	iii
(2) The Administration of the Land.		
Realisation of land revenue	7	iii
Surveys	8	*ib.*
Settlements	9	iv
Land Records	10	*ib.*
Transfers of land	11	*ib.*
Disposal of waste lands	12	*ib.*
Revenue and rent-paying classes	13	v
(3) Protection.		
Legislation	14	v
Police	15	*ib.*
Village Administration	16	vi
Criminal Justice	17	*ib.*
Prisons	18	*ib.*
Civil Justice	19	*ib.*
Registration	20	vii
Joint Stock Companies	21	*ib.*
Rangoon Municipality	22	*ib.*
Other Municipalities	23	*ib.*
Military	24	viii
Marine	25	*ib.*
(4) Production and Distribution.		
Agriculture	26	viii
Agricultural loans	27	ix
Co-operative Societies	28	*ib.*
Weather and Crops	29	*ib.*
Horticulture	30	x
Forests	31	*ib.*
Mines and Quarries	32	*ib.*
Oil wells	33	xi
Manufactures	34	*ib.*
Factories	35	*ib.*
Sea-borne Trade	36	*ib.*
Transfrontier Trade	37	xii
Public Works—		
(i) Roads and Buildings	38	*ib.*
(ii) Railways and Tramways	39	xiii
(iii) Navigation Canals	40	*ib.*
Irrigation	41	*ib.*
(5) Finance.		
Gross Income and Expenditure	42	xiv
Imperial Revenue and Expenditure	43	*ib.*
Provincial Income and Expenditure	44	*ib.*
Local Income and Expenditure	45	xv
Imperial Revenue and Finance—Land Revenue	46	*ib.*
Customs	47	*ib.*
Salt	48	xvi
Excise and Opium	49	*ib.*
Stamps	50	*ib.*
Assessed Taxes	51	*ib.*
Forests	52	*ib.*

(6) Vital Statistics and Medical Services.

	PARA.	PAGE
Births and Deaths	53	xvi
Plague	54	xvii
Medical relief	55	*ib.*
Sanitation	56	*ib.*
Vaccination	57	*ib.*

(7) Instruction.

Education	58	xvii
Literature and the Press	59	xviii
Literary Societies	60	*ib.*
Arts and Sciences	61	*ib.*

(8) Archæology.

Archæology	62	xix

PART II.

CHAPTER I.

Physical and Political Geography.

Physical Features of the Country, Area, Climate and Chief Scenery	See pages 1 to 6 of Report for 1901-02
Political	
Historical Summary	See pages 6 to 1[illegible] of Report for 1901-02.
Character of Land Tenure, Systems of Survey and Settlements	See pages 1[illegible] to 16 of Report for 1901-02 and pages 2 to 5 of Part II of Report for 1908-09.
Civil Divisions of British Territory	See pages 2 to 26 of Report for 1901-02.
Details of the last Census, Tribes and Languages	
Form of Administration	See pages 1 to 5 of Part II of Report for 1907-08

Changes in the Administration.

The Lieutenant-Governor	1	2
Administrative territorial units	2	*ib.*
Additions to and changes in the Administrative Staff	3	*ib.*

Relations with Tributary States and Frontier Affairs.

(*i*) *Shan and Karenni States.*

General	4	2
Principal events of the year	5	3
Internal affairs	6	*ib.*
Public Works	7	5
Mines and Minerals	8	6
Forest Administration	9	*ib.*
Education	10	7
Medical and Vaccination Departments	11	*ib.*

(*ii*) *The Chin Hills.*

Frontier Tribes	12	8
Chin Hills proper	13	*ib.*
Pakôkku Hill Tracts	14	9
Arakan Hill Tracts	15	*ib.*

(*iii*) *The Kachin Hills.*

Chinese Border	16	9
Unadministered Territory	17	*ib.*
Internal Administration	18	10
Forests	19	*ib.*

Condition of the People.

———	20	10

CHAPTER II.

ADMINISTRATION OF THE LAND.

Realization of the Revenue.

	PARA.	PAGE
Demand, recoveries, remissions and outstandings	21	12
Coercive processes	22	*ib.*
Surveys.		
Administrative	23	13
Revision Surveys	24	14
Extension Surveys	25	*ib.*
Town Surveys	26	*ib.*
Fishery Surveys	27	*ib.*
Lease Surveys	28	*ib.*
Settlements.		
General progress of Settlement	29	15
Operations of the year	30	*ib.*
Settlements in progress	31	*ib.*
Land Records.		
Administrative Proposals	32	16
Supplementary Survey—Rural areas	33	17
Supplementary Survey—Urban areas	34	*ib.*
Cost of Supplementary Survey	35	*ib.*
Survey Schools	36	*ib.*
Transfers of Land	37	18
Waste Lands.		
Grants and leases for cultivation	38	18
Revenue-free grants	39	19
Government Estates and Wards' Estates.		
———	40	19
Revenue and Rent-paying Classes.		
Land revenue paying classes	41	19
Tenants	42	*ib.*

CHAPTER III.

PROTECTION.
LEGISLATIVE AUTHORITY.

	PARA.	PAGE
The Original Council	43	21
The Present Council	44	*ib.*
Extent of Powers	45	22
Further Powers of Council	46	*ib.*
Course of Legislation.		
Work of Legislative Council	47	22
Indian Legislation affecting Burma.		
General Acts affecting Burma	48	23
Extension of Acts to the Shan States	49	*ib.*
Police.		
Strength, distribution and cost	50	23
Recruitment and conduct	51	24
Education and training	52	*ib.*
Buildings	53	25
Crime and the working of the Police	54	*ib.*
Detection	55	26
Preventive sections	56	*ib.*
Surveillance and identification	57	*ib.*
Railway Police	58	27
Military Police	59	*ib.*
Punitive Police	60	28
Village Administration	61	*ib.*
Mortality from wild animals and snakes	62	29
Rangoon Town Police.		
Strength	63	30
Conduct	64	*ib.*
Crime	65	*ib*
Statistics	66	31

	PARA.	PAGE
Criminal Justice.		
Powers	67	32
Courts	68	*ib.*
Offences reported	69	*ib.*
Original Jurisdiction	70	*ib.*
Punishments	71	33
Appeals	72	*ib.*
Revisions	73	*ib.*
Prisons.		
Accommodation	74	33
Prisoners	75	34
Discipline	76	*ib.*
Financial	77	35
Vital	78	*ib.*
Civil Justice.		
General Orders	79	35
Administration of Courts	80	*ib.*
Original litigation	81	36
Appellate Jurisdiction	82	37
The Chief Court	83	38
Judicial Commissioner, Upper Burma	84	*ib.*
Registration.		
Administrative	85	38
Deeds registered	86	39
Causes of variation	87	*ib.*
Income and expenditure	88	40
Joint Stock Companies.		
Number of Companies	89	40
Capital	90	*ib.*
General	91	*ib.*
Local Boards Administration.		
———	92	40
MUNICIPAL ADMINISTRATION.		
(i) Rangoon Municipality.		
General	93	40
Finance	94	41
Public Works	95	*ib.*
Public Services	96	*ib.*
Public Health	97	42
(ii) Other Municipalities.		
General	98	42
Finance	99	*ib.*
Public Works	100	43
Public Services	101	*ib.*
Public Health	102	44
Military.		
Strength of the Garrison	103	44
Military Works	104	*ib.*
Military (Volunteering).		
———	105	44
Marine.		
Light-houses and light-ships	106	44
Port Administration, Rangoon	107	45
Pilot Service, Rangoon	108	47
Minor Ports	109	*ib.*
Commercial Marine	110	*ib.*
Commercial Marine: wrecks and casualties	111	48
Government steamers and launches	112	*ib.*
Marine works and surveys	113	*ib.*

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

Agriculture.

	PARA.	PAGE
The Agricultural Department	114	50
Agricultural stations	115	*ib.*
Experimental cultivation through District Agencies	116	51
Taungya (Hill) cultivation	117	*ib.*
Publications and enquiries	118	*ib.*
The Veterinary Department	119	*ib.*
Agricultural stock and cattle disease	120	52
Pony and cattle breeding and shows	121	*ib.*
Protection from inundations	122	*ib.*
Agricultural loans	123	53
Co-operative Credit Societies	124	54

Weather and Crops.

Character of the Seasons	125	55
Area under cultivation	126	*ib.*
Cropped area	127	*ib.*
Irrigated area	128	56
Area under main crops	129	*ib.*
Prices	130	57

Horticulture.

Agri-Horticultural Societies	131	57
Experimental gardens	132	*ib.*

Forests.

Forest Reserves	133	58
Demarcation and Surveys	134	*ib.*
Working-plans	135	*ib.*
Communications and Buildings	136	59
Forest offences	137	*ib.*
Protection of Forests	138	*ib.*
Plantations and Experimental Cultivation	139	*ib.*
Extraction and sale of timber	140	60
The Kheddah Department	141	*ib.*
Miscellaneous	142	61

Mines and Quarries.

Grants of new concessions	143	61
Petroleum	144	62
Gold	145	63
Rubies	146	*ib.*
Other Minerals	147	*ib.*
The Indian Mines Act and numbers employed	148	64
Quarry stones	149	*ib.*
Revenue from mines and quarries	150	65

Manufactures.

Principal industries	151	65
Factories	152	66

Trade.

Maritime Trade—Total value	153	66
The Rice Trade	154	67
Rangoon—Foreign Imports	155	68
Rangoon—Foreign Exports	156	69
Rangoon—Coasting Trade	157	70
Minor Ports—Foreign Imports	158	*ib.*
Minor Ports—Foreign Exports	159	*ib.*
Minor Ports—Coasting Trade	160	71
Transfrontier Trade	161	*ib.*
Western China	162	*ib.*
Northern Shan States	163	*ib.*
Southern Shan States	164	*ib.*
Northern Siam	165	72
Southern Siam	166	*ib.*
Karenni	167	*ib.*

PUBLIC WORKS.

(*i*) *Roads and Buildings.*

Progress of important works	168	72
Administrative changes	169	*ib.*
Finance	170	73
Civil Buildings	171	74
Communications—(1) General	172	75
Communications—(2) Metalled roads	173	76
Communications—(3) Unmetalled Roads	174	*ib.*
Communications—(4) Accommodation for travellers	175	77
Miscellaneous Public Improvements	176	*ib.*

(ii) Railways and Tramways.

	PARA.	PAGE
Railways—Construction	177	77
Interruptions to traffic	178	79
Railways—Finance and traffic	179	*ib.*
Tramways	180	81

(iii) Canals.

Navigation Canals	181	81

Irrigation.

Irrigation—General	182	81
Irrigation—Finance	183	82
Major Irrigation (Imperial)— (i) Completed works	184	84
Major Irrigation (Imperial)— (ii) Works under construction	185	*ib.*
Minor Irrigation (Provincial)	186	85

CHAPTER V.

Revenue and Finance.

Gross Revenue.

Gross Revenue	187	87
Imperial and Provincial Revenues	188	*ib.*
Local Revenues	189	89

(a) Imperial Revenue and Finance.

Imperial Revenues.

Imperial Receipts	190	90
Imperial Expenditure	191	*ib.*

Land Revenue.

Ordinary Land Revenue	192	90
Capitation-tax	193	*ib.*
Land tax in lieu of capitation	194	91
Thathameda	195	*ib.*
Fisheries	196	*ib.*
Miscellaneous land revenue	197	92

Canal (Navigation and Irrigation) Revenue.

Canals	198	92

Sources of Imperial Revenue other than the Land.

Customs	199	92
Salt	200	93
Opium	201	94
Excise	202	*ib.*
Stamps	203	95
Assessed Taxes	204	96
Forests	205	*ib.*

(b) Revenue and Finance other than Imperial.

Provincial Revenues.

Provincial receipts	206	97
Provincial expenditure	207	98

Local Funds.

Description of Funds	208	98
District Cess Funds	209	*ib.*
District Funds	210	99
Town Funds	211	*ib.*
Cantonment Funds	212	*ib.*
Port and Pilot Funds	213	*ib.*
Miscellaneous Funds	214	100

Road and Education Cesses.

———	215	100

Municipal Revenues.

———	216	100

Other Funds.

	PARA.	PAGE
———	217	101

Paper Currency.

———	218	101

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

Births and Deaths.

Number of births and deaths	219	102
Causes of death	220	103
Plague	221	104
Fevers	222	105

Emigration and Immigration.

———	223	105

Medical Relief.

Hospitals and Dispensaries	224	105
Attendance and treatment	225	*ib.*
Expenditure	226	106
Staff and training	227	107
Government Medical School	228	*ib.*
Lunatic Asylums	229	*ib.*

Sanitation.

Expenditure	230	107
Water-supply	231	108
Conservancy	232	*ib.*
Sanitary Board	233	*ib.*

Vaccination.

———	234	108

CHAPTER VII.

INSTRUCTION.

GENERAL SYSTEM OF PUBLIC INSTRUCTION	See pages 77 to 83 of Part II of Report for 1907-08.	

Education.

Educational measures	235	110
Public and Private Schools and General	236	*ib.*
Number of schools and scholars and expenditure	237	111
Primary Education	238	*ib.*
Secondary Education	239	112
Collegiate Education	240	*ib.*
Technical Education	241	113
Training Schools	242	*ib.*
European Schools	243	114
Education of special classes	244	*ib.*
Female Education	245	115
Insein Reformatory School	246	*ib.*

Literature and the Press.

Publications registered	247	115
Presses, Newspapers and Periodicals	248	116

LITERARY SOCIETIES.

———	See page 101 of Report for 1901-02 and page 69 of Part II of Report for 1904-05.	
———	249	117

Arts and Sciences.

———	250	117

CHAPTER VIII.

ARCHÆOLOGY.

	PARA.	PAGE
———	251	118

CHAPTER IX.

MISCELLANEOUS.

ECCLESIASTICAL JURISDICTION.

———	See page 104 of Report for 1901-02.	

Ecclesiastical.

———	252	119

Stationery.

———	253	119

Chemical Examiner and Bacteriologist

———	254	119

REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR 1909-10.

PART I.

GENERAL SUMMARY.

(1) The Administration; The Frontier States; and the People.

Changes in the Administration.

1. The Hon'ble Sir Herbert Thirkell White, K.C.I.E., was Lieutenant-Governor of Burma throughout the year. The number of Divisions and Districts remained unchanged. There were a few minor rectifications of Township boundaries. The number of Superior Administrative posts was slightly increased in order to effect improvement in some branches of revenue administration. The cadre of the Superior Medical Staff was increased to provide for the Rangoon Hospital, and the Mandalay Forest Division was split into two divisions. Minor departmental changes are dealt with where necessary, under the subject with which the Department is concerned.

Frontier affairs.

2. The year shews a satisfactory record throughout the frontiers of the Province, for freedom from crime and disturbance, and progress in friendly intercourse with contiguous peoples and with tribes in unadministered territory. Some unrest was caused by the movements of dacoits on the Siamese frontier, but they did not extend their operations to British territory. The suppression of opium cultivation in Yünnan led to a large immigration into the Northern Shan States of Chinese coolies in search of work. Certain villages in the Irrawaddy basin in unadministered British territory were raided by the Chief of Teng Keng. The Chinese officials held meetings with the officers of Myitkyina, and of Bhamo, at which almost all frontier cases were amicably settled and arrangements were made for the composition of future frontier Courts, for the enforcement of the Track Law, and for compensation in frontier cases. Darbars, held by His Honour the Lieutenant-Governor at Myitkyina, and by the Commissioner of Arakan at Paletwa, were well attended by transfrontier Kachin and Chin Chiefs. The Burma Gold Dredging Company continued to employ numbers of transfrontier Kachins. The Chin border was so peaceful that the annual meeting between officers from the Lushai and Chin Hill Tracts and Manipur was deferred, and the few frontier cases that called for attention were disposed of at a meeting between the Assistant Superintendent, Chin Hills, and the Subdivisional Officer, Lungleh, Lushai Hills. On the north-western frontier two murders were committed by transfrontier Kachins in the Myitkyina territory, a raid was made from unadministered territory on the Chin village of Naungmo in the Homalin Subdivision, and there were two petty abductions by transfrontier Chins in Arakan. Of these the only serious case was the raid on Naungmo, in which thirteen persons were killed and a boy taken captive. A punitive expedition was being arranged at the close of the year.

The Shan States and Karenni.

3. The administration of the Shan States was peacefully conducted during the year. With a few exceptions the conduct of the Chiefs was satisfactory, while several of them have earned high praise for their efforts to prevent abuses and to preserve a pure and efficient administration. In particular, the increasing interest displayed by the *Sawbwas* of the Northern States of Hsipaw, Tawngpeng and South Hsenwi is reflected in the growing prosperity of the people entrusted to their charge; in the Southern States the *Sawbwa* of Yawnghwe continued to set a good example to his fellow Chiefs as a zealous and enlightened ruler; and under the female rule of Sao Nang Tep Hti La the State of Kenghkam is reported to be flourishing and the general standard of comfort to be improving. The mutual relations of the several Chiefs with one another were satisfactory. In the greater part of the States the seasons were favourable, and the crops good. Heavy early rains would have given bumper crops in the Northern States, and though counteracted by wind, insects and rain at harvest, gave a good return in the minor crops of sessamum, wheat, tea, potatoes and tobacco. Heavy rains destroyed the *taungyas* and caused distress in Mang Lün State; floods destroyed the crops of Yawnghwe and Myelat, and led to a local rice famine, which was relieved by the philanthropic efforts of the Yawnghwe *Sawbwa*. The small rice-crop of Karenni was good, but since the bulk of its food supplies is drawn from the regions affected by the scarcity, some shortage and distress occurred. The good crops in Karenni induced an increasing number of people to take up agriculture, and here and elsewhere local troubles were relieved by remissions of taxation and by agricultural loans. The external trade of the States declined, except in timber on the Salween and Mekong. Internal trade was brisk in the Northern States, where the large immigration of Chinese coolies made labour plentiful. A large sum was expended on improving the Government road from Taunggyi to the Railway at Thazi. The road and mule track from Taunggyi through Takaw and Kēngtūng to the Salween was improved. Important roads were constructed in the Northern Shan States, in Möng Mit and in the Kodaung Hill Tracts, and Shan and Karen Chiefs made a notable advance in the construction of rest-houses and bazaars. The Forest Department largely increased their area under reservation in the Southern Shan States and completed working-plans of teak reserves in the Northern Shan States, where the Bombay Burma Trading Corporation took out a lease of certain forests, in place of leases now expiring. Greater interest in education was evinced by the opening of schools maintained by private benevolence; the working of the Department was improved by the restriction of the number of registered schools, and the development of the schools retained. Public health was good; small-pox of a mild type, rarely occasioning death, was prevalent; there was no plague, and vaccination and the use of quinine became more popular.

The Chin Hills.

4. There was an absence of crime in the Chin Hills. Crops were good except for damage by rain in one or two localities, and the increase in the wheat crop was such as to lead to a hope that the Military Police will soon be altogether supplied locally. Demarcation of forests continued, and Public Works administration was improved by the formation of the Chin Hills into a separate Subdivision directly under the Superintending Engineer, Chindwin Circle. Roads were well maintained; a wire suspension bridge was carried across the Manipur river. Improved inter-village communications now make touring possible throughout the year. A half company of Siyin Chins enlisted in the Military Police, are reported to be well behaved, amenable to discipline and excellent Military material. It is unfortunate that venereal disease is spreading rapidly, and that leprosy has obtained a foothold among the Chins.

The Kachin Hills.

5. As in other localities, the year in the Kachin Hills was marked by security and absence from crime, though blood feuds and drunkenness were responsible for a few murders and assaults. Opium cultivation and illicit trade in the drug showed an increase, attributed to high prices on the frontier. Frontier roads and inter-village communication had much attention. The settlement of forest reserves continued, and an experiment was commenced with a view to mitigating the destructiveness of *taungya* cultivation by planting the Maibao (*Alnus Nepalensis*), to re-afforest the *taungyas*.

6. A favourable season led to a large increase in cultivation in the central districts of Upper Burma; but was marred by floods in the Lower Province; a check resulted in the annual migration from Upper to Lower Burma in search of employment. Condition of the People.

Public health was good in Lower Burma, where plague was stationary, and advance was made in sanitation in urban areas; in Upper Burma cholera lowered the standard in the towns, and plague was rife in one or two centres, and showed a tendency to spread into village areas.

(2) The Administration of the Land.

7. In 1907-08 ordinary land revenue expanded by five lakhs in demand, and by eight lakhs in collection. In 1908-09 the expansions under these heads were twelve and a-half, and fourteen lakhs. In the year under report expansion fell to three and a-half lakhs for demand, and to two lakhs for collection. Excluding amounts due to the Irrigation Department, which were not completely separated from ordinary land revenue in previous years, the increases in demand of ordinary land revenue during the year under report and previous years have been 3·58, 18·28, 4·89, and 2·94 lakhs of rupees. The year 1908-09 was unusually prosperous, and a decline in the rate of growth was to be anticipated in the year under report. The rains were particularly favourable in Upper Burma. The rains were sparse and variable in the frontier districts, and floods occurred in the lower reaches of the Salween and Irrawaddy basins; these floods decreased demands and collections over the Pegu Division, and the districts of Ma-ubin, Toungoo, Thatôn and Salween, comprising half the paddy-producing area of the Province. Outside these areas, ordinary land revenue collections rose by over six lakhs; the Meiktila Division alone contributed nearly two lakhs to the rise. Remissions were over two lakhs and more than double the amount last year; but the amount of remissions outside the flooded area was less than half a lakh. There were floods and inequalities in the seasons also in Mandalay, Kyauksè and Shwebo; but the resulting injury to crops in these districts does not show in the land revenue collections, because large areas irrigated by new works ended their period of exemption from assessment in the year under report. Realisation of Land Revenue.

8. There were no cadastral surveys by the Survey Department of the Government of India in the year under report. The reorganization of the superior Land Records staff was completed. The principle was laid down, that in future *Revision* surveys (of areas, where rapid changes in cultivation, or natural features, make annual correction of the standard maps too difficult) and *Extension* surveys (of new tracts outside the cadastral area) by special staffs, moving from district to district, shall be the exception; that these surveys shall be more generally undertaken by the regular district staffs, engaged for the work of annual correction, between the end of assessment in February, and the beginning of the rains in May; and that, where necessary, the regular staff shall be increased, to cope with the work, by the addition of permanent surveyors without local charges. The resulting revision of survey proposals, the large survey expenditure of last year, and financial stringency in the year under report, led to a practical cessation of survey work; the most important item postponed was the survey and allotment of leases in 15,000 acres of waste land brought under irrigation by the new Môn canal. The only demarcation done for special survey was in four small urban areas; Special Revision surveys were restricted to three districts, where settlements in progress made their continuance imperative; no new Extension surveys were undertaken; some details of existing Town surveys were completed by regular district staffs; Yamèthin Town was surveyed by the Probationers as a part of their training; and an examination and demarcation for survey of fisheries in Tharrawaddy was completed; in addition to this field work, the maps and area statements of a large number of previous Revision, Extension, Town and Fishery surveys were finished in the office, and fresh maps were prepared, from the old ones, for Fisheries in the Mandalay District. The amount spent on these surveys was one-third of the Surveys.

expenditure of last year. The issue of *patta* leases for rice cultivation was restricted to seven minor districts; in consequence, surveys for leases fell by two-thirds, numerous applications were made for leases for rubber cultivation in Lower Burma; and survey fees increased, owing to the large areas applied for.

Settlements.

9. Settlements of the first circuit of the Thatôn District and of the Minbu District, which give an increase of nearly three lakhs in ordinary land revenue demand, were sanctioned; and the usual intermediate rates were brought into force. The report on the Settlement of the Lower Chindwin District was submitted. The first settlement of the Pakôkku District was completed, and the report was submitted at the close of the year. The party engaged in the Pakôkku District moved on, to undertake the regular settlement of the Myingyan District, which will replace the summary settlement now in force. Field work was finally completed in the second circuit of the Thatôn District, the first circuit of the Hanthawaddy District, the Shwebo Canal tract, and the Meiktila District; and, at the end of the year, all the five parties engaged were ready to proceed with new areas. The total expenditure on settlements rose slightly, to a little over five lakhs of rupees; the cost of settlement remained at seven annas per acre. Existing instructions were consolidated into a single manual; and suggestions to abandon supplementary survey in precarious upland areas with numerous varieties of crops, in favour of lump assessments on village-tracts, or cadastral units, distributed by the villagers themselves, were under consideration.

Land Records.

10. There was a normal expansion of the area under Supplementary Survey, demarcation of grazing-grounds had attention, but difficulties arose in ejecting intrusive cultivators; enquiry was continued into unauthorised alienations of grant lands. The number of towns under Supplementary Survey nearly doubled; and greater attention was given to the issue of the annual registers, in consequence of the decision to make them the basis of record, and to discard Town Lands Rolls. The attendance at the Survey Schools continued about the same; the examinations showed a decided improvement in Survey and Arithmetic; the schools at Minbu and Sagaing were conspicuously successful.

Transfers of land.

11. The areas of lands sold and mortgaged have fallen annually since 1905-06 until they stand at the lowest figures since 1901-02. There has been a concurrent fall in civil litigation, registration, and under other heads. These regular decreases are probably due to some unexp lained crisis in Indian (*Chetty*) capital in or about 1905-06, and other provincial reports indicate that the crisis was not confined to this Province.

Last year and the year under report show accelerations in the rates of decline of sales by 5 and 18 per cent.; and in mortgages by 22 and 12 per cent. The price per acre for sales remained at Rs. 50 for the Province, and rose from Rs. 44 to Rs. 46 outside the Hanthawaddy District, and though the value per acre for mortgages fell from Rs. 40 to Rs. 35, this is only a return to the figure of 1907-08. Sales and mortgages increased by 16 lakhs in 1907-08, but fell by three and-a-half lakhs and 76 lakhs last year, and in the year under report. These figures indicate a withdrawal of capital from agricultural investment in the last two years; during this period there has been a large increase in the paid-up capital of joint stock, industrial and mining companies, by 113 lakhs last year, and by 52 lakhs in the year under report. The total area under mortgage again decreased by about 1½ per cent. during the year.

Disposal of waste lands.

12. The issue of leases for waste lands for ordinary cultivation (*pattas*) has been suspended, except in a few minor districts. Cultivators now work waste lands on squatter tenure, on payment of ordinary revenue. In consequence, the few *pattas* issued during the year were issues in arrears in Arakan, and one or two special issues in other districts, where exemption from revenue for a period was desired. The total area of grants and leases rose slightly, owing to numerous grants, some of large area in the Tenasserim Division, and on the northern frontier for rubber plantation; to special leases in the suburban area in Hanthawaddy; to grants in the Minbu Canal area; and to two special leases of large areas, one in Pegu needing capital for ordinary development, the other in Sagaing for the cultivation of the *Agave Americana*. The area of land granted as an appanage to

headmen (*thugyisa* land) rose; large grants were made under this head in the Tharrawaddy District from lands resumed for unauthorised alienation. The area of waste land granted for public purposes remained negligible.

Revenue and rent-paying classes.

13. The areas occupied by resident and non-resident agriculturists increased by considerable amounts, whilst the area occupied by non-resident non-agriculturists declined by 50,000 acres. The area of land let at full rents to tenants showed a small increase compared to the very large increase in the previous year, and the number of tenants increased rateably. The proportion of tenants holding their lands for a period of five years or more to the tenants holding on shorter leases declined. Rents fell slightly to Rs. 10-7-0 an acre. The prevailing tenancies in Upper Burma are those in which the landlord takes an agreed share of the actual crop. These are partnerships and are excluded from the returns, which are therefore incomplete in their definition of agricultural relations.

(3) Protection.

Legislation.

14. Six bills of the Provincial Legislature became law during the year ending March 1910. The Municipal (Amendment) Act dealt with dangerous fences (barbed wire) and simplified the procedure in Municipal prosecutions. The Boundaries Act Amendment Act made it clear that the decision of a Boundary Officer did not interfere with the legal title to land. The Embankment Act enabled an authorized officer to impress labour in emergencies and dealt with unauthorized embankments. The Repealing Act repealed the obsolete Rangoon Tramways Act, 1883, and the Upper Burma Municipal Regulation, 1887. The Fisheries (Amendment) Act prepared the way for an extension of the Fisheries Act to Upper Burma, prohibited the use of explosives and poisons, delegated certain powers and exempted bonds from registration. Certain sections of the Civil Procedure Code, and the Whipping Act were extended to the Shan States, and the Opium Act was re-introduced in Möng Mit State.

Police.

15. Police Administration for the year shows an advance in organization, and a fall in crime. With the opening of the buildings of the Provincial Police School at Mandalay, the number of Sub-Inspectors under training was raised, to cover annual requirements. A number of selected Head Constables were promoted to meet the temporary shortage in strength. New rules were introduced, under which the sanction of prosecutions under the preventive sections was placed in the hands of the superior police. New rules and registers for the surveillance of habituals were introduced. The Railway Police were redistributed, minor outposts were abolished, and new rules regulating their co-operation with District Police were brought into force.

The general reorganization has led to a large deficiency in the provision and replacement of quarters for officers and men, for which a sum of 26 lakhs is now required. Quarters are being hired until funds can be provided. The overcrowding of the Railway Police due to redistribution will be alleviated by the Company. The Military Police also need a considerable expenditure of funds owing to the decay of temporary, or semi-permanent quarters.

The number of casualties in the Civil Police force increased largely on account of lack of quarters, and weeding out of inefficients; and the number of recruits under training, and police passing through depôt schools, remained at a high figure. Examination results were good. There was a large fall in enlistment, and the force was considerably below sanctioned strength. The fall may be attributed to the good seasons of the last two years, and to the high wages of other callings. Literacy declined owing to the entertainment of illiterate natives of India. Discipline showed an improvement in all branches of the Police. Crime decreased generally but an outburst of crime against person and property occurred in or near the localities in which floods had done serious damage to crops during the year. Violent crime remained at the same figure with a rise in murders and homicides. Cattle theft was less prevalent and an increase in the number of cattle recovered is satisfactory. Detection remained the same, though it was vitiated

by unfavourable results in the areas affected by the wave of crime. The cocaine habit is spreading in the crime belt, and is associated with a decline in the opium habit.

The Rangoon Town Police now find it possible to enlist suitable Burmans, but have the same difficulties as other branches of the Police in recruiting Sikhs. Conduct was good, and crime was less in Rangoon during the year, and theft particularly rice-theft from the wharves, fell to small proportions Difficulty was experienced in dealing with cocaine and morphia dens, and in suppressing the turbulence of rival factions of Indian and Chinese aliens; the Chinese factions were quieted by one or two timely deportations.

Village Administration.

16. The number of village headmen remained practically the same. There was a large increase in the number exercising special criminal and civil powers. The revenue work of headmen was well carried out and they gave material assistance in the detection of crime. Their reporting of disease leaves something to be desired, especially as plague is now upon the list and is attacking villages in Upper Burma. There was a satisfactory decrease in departmental punishments inflicted upon headmen. Administrative fines on villages under the Track Law decreased with the fall in cattle-theft. Fines under other heads also decreased, and a distinct improvement was shewn in the resistance of villagers to armed attack.

Criminal Justice.

17. Orders were issued providing for the defence of poor accused in murder trials and for the travelling expenses of accused acquitted and discharged in police cases. Changes in the Courts were negligible. The main figures for the year shew a striking uniformity with those of the two past years. There was a small decrease in all classes of crime brought to trial, with the exception of cases due to action by the Railway Company to stop trespass, Police Act cases in Lower Burma, and murders in Hanthawaddy and Tharrawaddy Districts. In Lower Burma there was a large increase in sentences of short terms of imprisonment in petty cases instead of fine. Very few original cases were tried by District Magistrates in Lower Burma, but they did more work in revision and inspection. Sessions Judges undertook more appellate work and had fewer original and revision cases. The Chief Court was able to do more revisional work during the year. Appeals and the percentage of confirmation in appeals increased principally in Lower Burma.

Prisons.

18. The principle has been accepted that separate sides of the jail must be allotted to habitual and casual offenders. But while in three central jails, and in two district jails, the necessary structural alterations are complete, in six jails delay is caused by lack of funds. With this complete separation an endeavour has been made to do away with the supervision of habitual prisoners by casual convict warders. An experiment of supervising habituals by convict warders from their own ranks has been abandoned, and the system of supervision of habituals by paid warders in the Central Jails at Insein, Mandalay and Myingyan is under trial. The Special Jail at Meiktila for offenders between 15 and 18 years of age, proposed in 1906, was occupied at the beginning of the year. The report on this experiment on one year's working is already favourable, the progress in school, drill, and especially in the teaching of handicrafts being very satisfactory. A Committee has formulated proposals for the working of this jail under the Borstal system, and final orders have been passed since the close of the year.

The accommodation for prisoners increased slightly during the year, partly by the transfer of unnecessary female wards. The average cost of a prisoner fell towards the normal figure. Though the admissions increased and the discharges decreased, the daily average was less by 190. Jail offences decreased markedly, except in petty breaches of jail rules where a rise was due to the continued enforcement of stricter discipline. Health was good though below the recent high standard. Two convicts escaped and have not been recaptured. Eleven escaped in 1908.

Civil Justice.

19. The Chief Court continued to be assisted by an Additional Judge and obtained the temporary services of a second Additional Judge. The Judicial Commissioner of Upper Burma had the services of an Additional Judge during two-thirds of the year. Institutions rose heavily, the value of suits rising by 32

lakhs in the Chief Court, and though the assistance afforded enabled both Courts to make some progress in clearing off arrears, congestion continued, and durations increased heavily on the appellate side of the Chief Court.

In District Courts institutions fell slightly all round; owing to the pressure of magisterial work necessary inspection was not carried out, and durations in original work rose heavily, though some part of this rise in duration in these and other Courts was due to the orders that mortgage and administration suits are to remain pending until final decree. The proposal to place a separate District Judge in each important Lower Burma district was rejected on financial grounds. No progress was made with the buildings and alterations necessitated by the development of a Judicial service.

A few readjustments were made in Subordinate Courts, and the Rule Committee commenced its labours. Durations rose slightly,but the rise is more than covered by the orders to keep mortgage suits pending until final decree. The disposal of miscellaneous and execution cases was good; imprisonment for debt fell to the figure of 1904; and realisations rose by one-third. In Insolvency there was marked progress in dealing with creditors' claims and assets.

Institutions in the Subordinate Courts fell heavily as in 1907 and 1908. An examination of the figures of the rise between 1902 and 1906 and of the subsequent fall leads to the conclusion, as suggested in last year's report that the variations have been due to extended withdrawals of Indian capital by Chetties.

Registration.

20. The number and value of compulsory sales and mortgages fell heavily and uniformly for the Province, and the value of instruments relating to moveables rose. The variations were due in the first place to decreased investments in land from Rangoon and Mandalay and in the second place to fluctuations in land investment in Minbu, Magwe and Shwebo, due to oil-well and irrigation schemes. Eliminating these local causes of variation there is apparent a slow and steady rise both in number and value of sales and mortgages in both sections of the Province.

Joint Stock Companies.

21. The large expansion in joint stock enterprise continued in the year under report, and nominal and paid-up capital now stands at three times its amount two years ago. Though oil flotations continued large, as yet only a fraction of the paid-up capital is devoted to this form of enterprise. Paid-up capital fell after the large investments of last year, and the amount sunk in commerce and industry has reduced investments in land.

Rangoon Municipality.

22. The year showed continued activity in laying out Rangoon, providing the Town with up-to-date facilities and ensuring its well-being by Rules and Bye-laws. The practical rebuilding of the Town still progresses, with the consequences of arrears in the buildings department, and of trouble due to the non-observance of structural and sanitary directions by the builders. Steps have been taken to effect improvement in these respects. There was a deficit of 3½ lakhs at the close of the year, but the rateable value is rising by revision, and collections of rates and taxes increased by 1⅓ lakhs. Debt increased to 166 lakhs. The funds for electric lighting, water-supply and sanitation continue unsatisfactory as they are overburdened with debt charges, but receipts are approaching expenses and progress is being made in strengthening these services. Public health showed much improvement, especially in plague; the rate of infant mortality is enormous, and more protection against small-pox is necessary, but is difficult to secure. Milk shops and coolie barracks are being taken in hand. Markets improved. The state of the roads is unsatisfactory owing to the small allotments for repair and paving.

Other Municipalities.

23. The number of Municipalities outside Rangoon increased to forty-four by the constitution of a Committee in Syriam. Municipal Revenues, both from taxation and from rents and fees, showed a large expansion; and there was a marked decrease in plague mortality. Grants for plague prevention decreased by a lakh and a third, and plague expenditure rose by nearly the same amount; a net sum of over two lakhs had to be found by curtailing other expenses; consequently other improvements were postponed except in cases where special allotments were made by the Local Government from the three lakhs sanitary grant.

The deficit was roughly covered by a saving of two lakhs on Hospitals and Dispensaries. Besides plague expenditure, the only increase in expenditure was on the construction of roads. Work on general sanitation was confined to study of sanitary designs for buildings, to measures for the control of lodging-houses, and to the discussion of water and drainage schemes. Beyond the completion of the building in progress at Allanmyo, little was done for hospitals. Improvements were carried out in many bazaars with a view to render them rat-proof; rats are found to enter a bazaar if the plinth is worn away, or boxes or bags lie about; and Municipalities are framing bye-laws to deal with these difficulties.

Military.

24. The strength of the garrison remained practically the same as in previous years. Expenditure on Military works which decreased by 4·5 lakhs last year decreased still further by 1·38 lakhs in the year under report. Progress was stayed on the buildings for a battalion of British Infantry at Maymyo. Small works were carried out at Maymyo, Bhamo, Shwebo, and at Mandalay. There was an increase of nearly three hundred men in the Volunteers, and efficients increased by over that number, resulting in an increase of nearly Rs. 16,000 in grants earned.

Marine.

25. The scheme for the improvement of the Light-houses was well advanced. Beacon Island Light-house was completed; Table Island, Green Island and Alguada Reef Light-houses were fitted with incandescent burners; the chasm in Alguada Reef was closed; work on Double Island and Savage Island Light-houses was sanctioned for next year; and the China Bakir and Reef Island lights remain to be dealt with. Beri-beri increased among the light-house and light-ship staffs.

The ordinary income of the Rangoon Port Trust showed a normal expansion; expenditure increased at a more rapid rate, on account of the increase of interest and sinking fund charges on the various Port loans, and in a small degree on account of increases due to reorganization of Traffic and Port Establishments, and to contingent works; expenditure exceeded income by four lakhs. A loan of thirty-two lakhs, issued to provide for River Training Works, raised the Port debt to 239 lakhs. The wharves were completed except one berth under reconstruction. The River Training Works were commenced; the quarries at Kalagauk Island and steam hoppers were completely equipped, and the first loads of stone transported and placed in position. A conference between Railway and Port executives led to a preliminary agreement for a riverside Railway depôt and siding facilities; and work upon the depôt commenced. A Foreshore Committee appointed to mediate between the Port Trust and foreshore owners, laid down certain important principles dealing with the future finances of the Port; they recommended a decrease of shipping, landing and wharfage charges—up till then the principal source of general Port income—and the replacement of the income lost by an increase in the river due. The scheme for fixed salaries for Pilots was rejected in favour of a five yearly examination of pilotage charges, and of the contributions to the Pilot Fund.

In Minor Ports, excluding loans, ordinary revenue showed an increase of 25 per cent. The three ports which possess Port Officers, were energetic in applying the funds raised during the year to the improvement of foreshore facilities, and expenses nearly doubled, leading to a decline of the closing balances which had been swelled by funds held in reserve last year.

The number and tonnage of the Foreign Steamships entering Rangoon increased largely, especially the tonnage. Coasting steamers and sailing vessels and the proportion of British shipping also showed a rise.

The Government Flotilla increased normally. A survey of Rangoon Harbour was made; river lights and marks were improved; and the Marine Survey of the coast of Burma continued.

(4) Production and Distribution.

Agriculture.

26. The Superior Staff of the Agricultural Department was reduced under financial pressure to a Director, Deputy Director, and Agricultural Chemist, and district agricultural surveys were abandoned for the time being. The output of

the Department in research and publications, increased in amount and value. The Mandalay station made great strides in completing equipment, raising the area of cultivation, and amount of produce, and in providing facilities for research. Experiments under District Agencies have established moisture-resisting paddy in Arakan, ground-nuts in the dry zone, and wheat in the hills. Methods of improving the wasteful and dangerous methods of *taungya* cultivation were studied by the Department.

The Veterinary School at Insein was improved; a Veterinary Hospital was opened; and a scheme was sanctioned for a Veterinary School at Taunggyi, to serve the Shan States. The trade-routes into the Bhamo District from China were watched, to prevent the importation of cattle disease, and the question of watching all trade routes from China and Siam was taken up. A scheme for breeding a race of cattle immune to rinderpest, in the Möng Mit State, was under discussion.

There was a satisfactory increase in cattle, except in buffaloes, which are said to be undergoing replacement by oxen for agricultural purposes. The year was a healthy one, and free from epizootic disease with very few serious outbreaks; though, owing to the exceptionally small mortality recorded in the previous year, the number of deaths shows a large increase. Two outbreaks of rinderpest, one of which was serious, were traced to importation of cattle disease over the frontier from China and Siam; in several other cases outbreaks were traced to carelessness, and wilful obstruction, on the part of immigrant natives of India in the enforcement of the rules. The last Government stallion was sold; except for a scheme sanctioned for improving Shan ponies, Government breeding is in abeyance.

Agricultural loans.

27. The amount of agricultural loans advanced last year was the record highest; in the year under report the amount is the least since 1905-06. The decline is due to prosperity, and would have been larger but for a special effort in the Irrawaddy Division to popularise these loans as a remedy for indebtedness. There was a large increase in Tharrawaddy to relieve the distress caused by flood and cattle disease, and a heavy fall in Upper Burma. Remissions, collections, suspensions, and amounts overdue at the end of the year all declined. The Land Improvements Act is still used very sparingly.

Co-operative Societies.

28. Co-operative Societies shew a steady increase in numbers, though naturally the high ratio of advance of the first stages of the movement is not maintained. Working capital per member remained the same, but over three lakhs of capital is now contributed from Burmese sources, and there is a prospect that more Burmese capital will be available. Progress in organization has been such that it is now possible to strengthen the movement by leaving more to the societies themselves, and by discouraging weak and ineffective societies. The one Central Union Bank at Pakôkku which advanced money at more than the usual society rate to its constituents has been reconstituted on proper lines; a creditor's bank has been started for canal cultivators in Mandalay; and eight Unions of societies have been formed, which inspect, control and guarantee their members. The *Luzzatti* type of society, which enables members to deposit savings, is ousting societies of the *Raffeisen* and *Schulze* type.

Weather and Crops.

29. The seasons were even more favourable than last year to a heavy paddy crop, and to a general diffusion of cultivation, especially in the dry zone districts of Upper Burma. The rains held up as they passed over the northern delta districts, fell heavily in the central districts of the dry zone, held again in the districts fringing the hills, and in their final downpour furnished an unusually high level of inundation in the rivers, which was generally favourable to cultivation, especially in the dry zone districts. Serious damage was caused by floods lower in the Delta, notably in Pegu, Thatôn, and Amherst, where thousands of acres were thrown out of cultivation; important changes occurred in the central dry zone districts, where cultivation was extended, and much of the area under millet and ground-nut was replaced by winter rice and sessamum; the area irrigated from tanks was very largely extended; and the area under rice rose by over a quarter of a million acres, the whole provincial increase. Prices continued to fall, owing possibly to the shortage of Indian capital for agricultural investment

through Chetties, and as a result, as in the previous year, a large proportion of the crops was withheld in storage in hopes of a rise.

Horticulture. 30. The Agri-horticultural Society of Burma shows increasing activity in its garden in Rangoon, and may be said to be established now as a working asset to the Province. The value of plants, flowers, seeds and orchids sold, rose thirteen per cent.; the annual shows are growing in popularity, and in the character and number of exhibits; and the Agricultural Department reports that Malta Lemons have already been established through the medium of the Society. The experimental gardens, maintained by the Agricultural Department in the Shan States, Myitkyina, and the Chin Hills, fulfilled their objects during the year, and have promoted the commercial cultivation of potatoes, onions, wheat and tobacco. Though some fruit trees did well in the Chin Hills, the cultivation of fruit trees has not spread yet outside the gardens; and the largest garden in the Province at Taunggyi, in the Southern Shan States, showed poor results in fruit, owing to the inroads of swarms of destructive insects. The importance of this garden will increase when the Southern Shan States Railway is completed.

Forests. 31. Reserved Forests increased in area by nearly ten per cent. owing to the notification of large areas to protect the head-waters of streams, and to control and regulate their supply; among these is a reserve to protect the Zawgyi river, which did so much damage this year in the Kyauksè District. The area undergoing settlement at the end of the year was about half that at its commencement. In spite of the large additions to the reserves, there was only about a thousand miles of boundary to demarcate at the end of the year. Only one working-plan was sanctioned, and four parties were at work on plans during the year; but almost all the teak area is now included in either working-plans or girdling schemes, and other species do not require working-plans at present. The length of roads and paths constructed during the year fell; but timber firms spent a considerable amount privately on communications for their own benefit, and two firms have introduced light railways with satisfactory results. Expenditure on buildings rose fifty per cent. and covered two offices, and necessary quarters for a number of officers of all grades. Forest offences reported and dealt with by Courts fell from last year's high figure; whilst offences compounded by Forest Officers remained stationary. Expenditure on fire-protection rose, and fires were practically non-existent within the protected area. The Mergui rubber plantation was sold after the close of the year. Experimental work increased on the growth of teak; para rubber was shown to grow successfully and may, with *Ficus elastica*, be a success commercially, in the Bhamo and Myitkyina Divisions; experiments on mangrove tannin have not reached the report stage yet. The amount of teak girdled fell, but was still large; the amount extracted by purchasers rose largely, in consequence of the extension of the purchase contract system. Future departmental extraction is confined to the Pegu Circle, where its organization has been improved but is hampered by lack of haulage in the Rangoon depôt. Mechanical haulage will be supplied after the depôt has moved to Insein. The fuel extracted by Government agency increased largely, owing to an arrangement made during the year to supply the Marine Department direct. A small number of sleepers only were sold to the Railway, and the balance lying in the forests were made over to Railway contractors, in accordance with the determination that direct supply should cease. The *Kheddah* Department has been placed under the Chief Conservator; and the capture of elephants was resumed. Eighteen members of the subordinate service passed out of the Tharrawaddy Provincial School during the year. The school is to move to Pyinmana, where necessary quarters have been constructed, at the close of the school year. The Subordinate Forest Service was reorganised during the year. A Forest Conference was held at Maymyo, when it was decided to concentrate fire-protection upon improvement-fellings, and a uniform scheme for dealing with moist teak reserves was drawn up. Departmental receipts rose slightly, and with a larger decrease in expenditure, formed a satisfactory balance of net revenue for the year.

Mines and Quarries. 32. There was a further development in prospecting for minerals, but the area examined was better defined; prospecting leases on the western and northern hills, which had been disappointing, were given up; and prospectors gave

more of their attention to the edge of the Shan plateau, and to the long ranges of hills running south through Tenasserim. Two new companies were ready to begin to work tin in Tavoy at the close of the year; and a small company to work copper in Myitkyina has been floated. In Myitkyina the Burma Gold Dredging Company had a successful year; but the jade mines were hampered by disputes. The Ruby Mines Company again restricted output on account of the continued fall in prices on the European market. The Burma Mines Company, Limited, completed their Railway in the Northern Shan States, had a satisfactory outturn of lead and silver, and extracted some iron ore on a prospecting license. The Burma Development Syndicate in Mergui reduced production of tin owing to a fall in price, and concentrated more attention on wolfram; but are handicapped by having to send their ores into the Malay States for separation. The granite quarries in Thatôn increased their output very considerably, a large area in the district was leased for thirty years and areas were reserved for the formation of Government quarries. The granite quarries on Kalagauk Island for the Rangoon River Training Scheme completed their equipment and commenced delivery.

Oil wells.

33. Oil Companies showed a tendency, during the year, to separate clearly the function of refining, which is dealt with under manufactures, from that of extraction. There was a decrease in production in the smaller oil-fields, due to exhaustion; and in Yenangyaung itself the enormous increase in production was due to increased activity, and not to increased productiveness. New prospecting licenses in the Magwe, Minbu and Pakôkku Districts have been freely taken; the areas of all concessions held have been carefully scrutinized for new wells, and new fields; and all companies are rapidly and largely increasing their storage capacity for crude oil on the fields. The completion of the Burma Oil Company's pipe-line leaves the Irrawaddy Flotilla Company and River Transport Company tank steamers available for the transport of the products of other oil companies to the refineries in Rangoon. A Warden of the oil-fields has been appointed, and precautions are being taken against fire in the fields, and water in the mines.

Manufactures.

34. The expansion of the oil industry has resulted in the construction of several new refineries at Syriam in the year under report. The small Burmese refineries at Prome were closed, except one, owing to difficulties in obtaining crude oil. The small rice mills worked by Burman and Native capital outside Rangoon had a fair year, and the influence of railway construction in promoting mills for local supply was shown by the closure of mills at Moulmein and the erection of mills along the Pegu-Moulmein Railway. Local saw mills had a bad year owing to scarcity of timber. Burmese manufactures of *ngapi* and cigars flourished; and trade in various artistic handicrafts was good, and the articles better finished. The large number of Indian operatives in Rangoon mills showed a slight decrease. The increase in Indian children employed is notable.

Factories.

35. The steady rise in the number of factories under the Indian Factories Act continued, rice mills and saw mills leading the way. Rates of wages continued good, and the condition of the factories is satisfactory, though the coolie lines in large towns stand in great need of sanitary regulation.

Sea-borne trade.

36. Maritime trade decreased by one per cent., but showed a healthy tone: and its volume was above the average for the five years ending 1907-08. Foreign imports and coasting trade declined, whilst foreign exports rose, giving a balance of exports over imports of above five crores of rupees in place of the deficit noted last year. The decline in imports was due to depression in cotton, woollen, and silk goods due to overstocking last year. Under minor heads the year was a record one for imports of provisions and salt and there was a large advance in parts of ships imported for the construction of river and harbour launches. The rise in exports was mainly due to a rise in export of rice in which the foreign and coasting export for the year was a record, to the diversion of a large quantity of rice from the coasting to the foreign trade, and to the rise in export of mineral oils and their products. But there were also large increases under raw cotton (due to scarcity in America), grains and pulse (due to scarcity in India), pig lead (a new product), wood and its manufactures (due to a recovery in teak both in India and in the foreign market), and hides and skins and ground-nuts (which continue to be diverted from the foreign to the Indian trade). The determining

conditions of variations in the trade in rice and food grains were an improvement in the famine conditions of Bengal resulting in a heavy fall in demand, a partial famine on the Coromandel coast resulting in increased demand in Madras, especially for paddy from which par-boiled rice is prepared, and the diversion of Saigon rice to Southern China to meet scarcity, which coupled with the fact that the Rangoon prices were lower than those in Saigon, led to a brisk demand from Java and the Straits Settlements, resulting in the large diversion from the Indian to the foreign trade. Among minor ports (in which foreign imports are negligible), the trade of Moulmein showed a healthy increase in exports of rice and teak, and Bassein showed a large advance, with future possibilities in the export of rice, owing to the influence of the Bassein-Henzada-Kyangin Railway.

Transfrontier trade.

37. Transfrontier trade is a trade by caravan and in specie, and the large returns of treasure resulting, which amount to one-quarter of the annual total trade, must be excluded in order to get a fair view of its condition. In the year under report, trade in merchandise reached the record figure of 428·45 lakhs, exceeding the previous best year by 8·52 per cent. Imports slightly exceeded exports, but if lead imported from the new Bawdwin mine in the Northern Shan States is excluded, the balance of exports over imports was normal. A decline in yarns and cotton exported to transfrontier States was partly balanced by a rise in piece-goods. Steady decline continued in trade with Western China, and is attributed mainly to the competition of Japanese yarns, to the French Railway to Yünnan-Fu, and to the rise of cotton mills in China. The Northern Shan States showed a fall in cotton goods received and rice exported. The Southern Shan States had a good year, increasing their exports of ponies, hides, *thanatpet* and teak, and taking more yarn and piece-goods. Northern Siam and Karenni had a good year, increasing their exports to Burma of elephants and teak, though disease caused a fall in cattle imported from Siam. Southern Siam declined in imports into Burma owing to the overstocking of the silk market in the previous year.

Public Works—(i) Roads and Buildings.

38. Imperial expenditure on Civil Works fell, as schemes in progress were completed. A little more than a lakh of rupees was spent on a post office in Rangoon, quarters for postal signallers in Yenangyaung, alterations in stations for wireless telegraphy at Victoria Point and Elephant Point, and the further rebuilding of the currency office.

A general redistribution of Public Works charges to suit changes in recent years caused a slight rise in the cost of the Public Works Establishment. Provincial expenditure was cut to the lowest possible figure to meet the deficiency in Provincial revenues, and fell from 81·28 to 67·03 lakhs, of which 20·18 lakhs were spent upon establishment, 27·20 lakhs upon the year's repairs to existing works, and only 19·64 lakhs upon new construction. Of this sum 11·57 lakhs were spent on buildings, 6·38 on roads, and 1·69 on miscellaneous public improvements.

As a number of costly buildings and roads were under construction, no new Provincial works were commenced on these funds. The year was confined to the completion of existing undertakings; and the absence of new works turned more attention to Provincial repairs which rose by 1½ lakhs, each head sharing the rise. Important new works were deferred indefinitely, including the accommodation of the Civil Police throughout the Province, the separation of Habituals and Casuals in jails, the construction of a Central Lunatic Asylum, and the extension of the buildings of the Rangoon College.

The General Hospital and the Chief Court in Rangoon, the Police Training School and the Agricultural College in Mandalay, and the Veterinary School in Insein which had been completed, were equipped with necessary minor constructions; improvements were effected in ten other hospitals and in minor accommodation for the Military Police in various hill stations; the foundations of the new Government Press in Rangoon were partly carried up to plinth level; accommodation was furnished for a few officers; and a small sum was spent on schools. Beyond this, original expenditure on buildings was trifling. A few minor roads were completed; and work was done in equipping with masonry bridges, and widening and ballasting a number of existing roads in the Delta, and the three important roads which give access to the Southern Shan States, the Yenangyaung oil-fields, and the Ruby Mines.

Under Local Funds there was a slight rise in the total expenditure which was nearly eight lakhs. But while original works increased by three-quarters of a lakh to over four lakhs, repairs showed a corresponding decline. Six hospitals and dispensaries were completed or improved; a number of District and Town roads, a few of which had been taken over from Provincial Funds, were improved and equipped with masonry bridges.

The amount spent in original works and repairs from contributed funds rose from eleven to over thirteen lakhs, owing to a rise of three and-a-half lakhs in contributions for roads from Native Chiefs in the Northern Shan States. Besides these roads, the construction of two Municipal Hospitals was completed; other Municipal Hospitals were improved; work was done on reclamation in Mergui; and on the Septic Tank in Maymyo.

Public Works—(ii) Railways and Tramways.

39. The Southern Shan States Railway was sanctioned, and construction began, but was not pushed beyond the 23rd mile, owing to realignment and further survey.

The alignment has been determined of the East Daga Loop railway, an important project for improving communications in the Delta, which was sanctioned some years ago, but delayed for consideration of alternative proposals.

The report and estimate for the Zadabin-Chittagong Railway, to connect Arakan and Lower Bengal, are before the Railway Board. The bridge to connect Rangoon with the mills on the east of the Pazundaung Creek has been referred to a Committee.

Interruptions from flood were more frequent during the year, but were unimportant, except for the wash-out of two bridges on the Pegu-Moulmein line in August, which led to a suspension of traffic at the point, for over a month.

Interruptions from accident also increased, the conspicuous feature being the large number of cases in which an obstruction was placed on the line maliciously, or danger was caused by theft of bolts, nuts, or plates from the permanent-way. Most cases were brought to notice before harm was done, but there were six accidents from malicious obstructions, and in one accident resulting from theft a passenger was killed and damage was done to the amount of nearly Rs. 16,000.

Net earnings decreased owing to increase of expenditure, the percentage of net receipts to capital falling from 4·39 to 3·91. The traffic on the newly opened Pegu-Moulmein and Henzada-Kyangin branches increased enormously.

A proposal by the Arakan Flotilla Company to construct a steam tramway from Maungdaw to Buthidaung for seventeen miles is under consideration.

Public Works—(iii) Navigation Canals.

40. There are three Navigation canals in Burma, the Twante, Pegu-Sittang, and Sittang-Kyaikto. No capital or revenue account has been opened for the Twante Canal, where the small expenses of maintenance are paid out of local funds. The Pegu-Sittang and Sittang-Kyaikto locked canals are maintained principally by navigation dues. The tonnage and value of merchandise, and the revenue declined this year, mainly in large cargo boats for paddy, owing partly to the competition of the Pegu-Moulmein Railway, and partly to decline in the paddy available for export. Net revenue showed a satisfactory rise owing to the decrease in expenditure. A considerable amount was spent on the Pegu-Sittang Canal in raising the tow-path and in preparing for metalling which is to be done from local funds. A cut-off has formed in the mouth into the Salween. The Shwetachaung Irrigation Canal in the Mandalay District also collects navigation dues, which form about five per cent. of its income.

Irrigation.

41. Imperial Works under the head of Major Irrigation had a good year; there was a normal rise in the receipts from the Mandalay Canal, and the increase in the area irrigated gives promise that the original area projected may be reached; the area irrigated by the Shwebo Canal fell, owing to a deficiency in supply, but the revenue rose two-thirds, owing to the falling in of remission periods; there was a net revenue of over two lakhs on the year's working, and a return of over six per cent. on capital outlay. The construction of the Môn and Ye-u Canals was pushed on vigorously.

The gross revenue from Provincial Works declined, and the net revenue increased as expenditure was reduced by over half a lakh of rupees. The

Irrawaddy protective embankmerts in the Delta, which possess capital accounts, showed a fall in the area protected and revenue collected, with a decrease in expenditure and a larger net revenue as the scheme for heightening and strengthening the system approaches completion. The protective embankments in the Sittang area, and the Ma-ubin embankment in the Delta, classed together as they have no capital accounts, rose largely in area protected, but decreased in gross and net revenue, owing to the high inundations which caused widespread destruction by the breach of a bund in the Sittang. Revenue from Navigation canals also declined. The only real increase in revenue was in the Minor Irrigation Works mostly dating from Burmese times scattered through the dry zone of Upper Burma. The rainfall was uniform and good for these, and led to considerable increases in the small areas irrigated. Expenditure rose considerably in repairing weak and old works to stand the unusual strain ; inundations from the two rivers, which supply the intricate network of canals in the Kyaukse District, destroyed some 40,000 acres of crops ; and the increase of net revenue was small.

(5) Finance.

Gross Income and Expenditure.

42. The gross revenues of the Province including all heads of Imperial, Provincial, and Local Funds fell to eleven crores of rupees. The net decrease of twenty-three lakhs was compounded of an increase of twenty lakhs under Imperial and Provincial receipts, and a decrease of forty-three lakhs in Local Funds. Half the increase of twenty lakhs in Imperial and Provincial Funds was under Land Revenue; the balance was distributed evenly among smaller heads. The decrease of forty-three lakhs consisted mainly of a decrease of sixteen lakhs in Rangoon Municipal revenues, nearly representing the loans taken last year, and accounted for by the fact that no loans were taken by the Rangoon Municipality in the year under report ; and of a decrease in the Ordinary and Capital Revenues of the Rangoon Port Trust, owing to the fact that only one loan of £200,000, for the River Training Scheme, was taken during the year.

Gross expenditure fell by about twenty lakhs to seven and a half crores. There was a decrease of a fall of thirty-three lakhs in Provincial and Imperial expenditure and a rise of thirteen lakhs in Local expenditure. The fall of thirty-three lakhs in Provincial and Imperial expenditure was due chiefly to a fall of twenty-eight lakhs in Civil Works. The rise of thirteen lakhs in Local expenditure resulted from a fall of eleven lakhs in the expenditure of the Rangoon Municipality, and from a rise in Capital and Ordinary Expenditure of the Port Trust by fifteen lakhs and three lakhs due to expenditure on the River Training Scheme, and o the flotation charges of the loan of £200,000; half of the remaining six lakhs of increase was devoted to the improvement of minor ports. The balance is evenly distributed in public works in Cantonment, District, Municipal and Town Funds.

Imperial Revenue and Expenditure.

43. The Imperial income rose from 386 to 389 lakhs of rupees. The wholly Imperial heads of Customs, Salt and Major Irrigation with the revenue from the divided heads of Land Revenue and Forests gave an increase of over twenty-one lakhs of rupees. Small decreases in revenue under the Imperial head of Opium, the divided heads of Excise, Stamps and Tributes, and some minor items, reduced the gross increase to over eighteen lakhs. The amount paid by the Imperial Government to the Provincial Revenues in contributions and adjustments increased by over fifteen lakhs of rupees. Imperial expenditure declined from 58 to 54 lakhs, on the completion of Civil and Military Imperial Works in progress, and the net Imperial Revenue, deducting all items, was 335 lakhs and showed an increase of seven lakhs over the figure for last year.

Provincial Income and Expenditure.

44 The Provincial income rose from 452 to 469 lakhs of rupees. Excluding grants from Imperial sources, which amounted to 108 lakhs, and included 15 lakhs out of the Imperial contribution to the River Training Scheme, and three lakhs to sanitation, the Provincial income from Provincial sources was 360 lakhs, an increase of less than a lakh over the previous year's figures. Ordinary land revenue was stationary by reason of the floods in Lower Burma, and of the

shifting of the centre of prosperity to Upper Burma. Minor heads of land revenue, and small sources of revenue, the Forests, Ports, Education, and Minor Irrigation, showed slight increases, but these merely counterbalanced the decreases under the revenues from litigation and its connected heads. Expenditure sank from 472 lakhs to 443 lakhs. The opening balance of the year of settlement 1907-08 was 62 lakhs. Though an Imperial grant of 50 lakhs towards general expenditure was received in that year, the closing balances of that and the following years have been 31, 10 and 35 lakhs; and Public Works expenditure on Civil Works, not including grants merely passing through their hands, has been 105·54, 81·28 and 67·03 lakhs; the expenditure on original works in the year under report sank to 19·64 lakhs.

Local Income and Expenditure.

45. The local funds maintained out of localised revenues by Districts, Municipalities, Towns, Cantonments and Ports, fell from 288 to 245 lakhs in receipts, and rose from 251 to 265 lakhs in expenditure during the year. The principal variations have been noted when dealing with gross revenue. The Rangoon Port Trust began the year with a very large opening balance in its Capital Account which carried it over its excess expenditure. Minor Municipalities decreased three lakhs in receipts due to less grants for sanitation and general purposes and therefore reduced their expenditure by a lakh and-a-half. The total expenditure on public works, including all expenditure for public health and convenience, in Municipalities was 136 lakhs of rupees. The indebtedness of the funds at the close of the year was 435 lakhs, of which eleven and-a-half were due to Government, and the balance was owing to the public. All funds were solvent at the close of the year and were reported to be in sound financial condition.

Imperial Revenue and Finance—Land Revenue.

46. The figures for land revenue for the agricultural year have been vitiated in previous years by the inclusion of sums paid to the Irrigation Department. Excluding these, the gross land revenue collected showed an increase of ten lakhs over last year; last year increased nearly twenty lakhs over the uncorrected figures of the preceding year, in which there had been practically no rise at all. Under the head of *Ordinary Land Revenue* there was an increase of only two lakhs in *Collections* as against an increase of fourteen lakhs last year. *Capitation-tax* in Lower Burma, increased by a lakh owing to an increase in immigrant Indian coolies, and to enhancements of tax, though the number of immigrant labourers from Upper Burma decreased. *Land tax in lieu of capitation-tax*, collected in a few small areas, decreased owing to erosion of land, and acquisition in the areas affected. *Thathameda tax*, collected on households in Upper Burma, increased by nearly a lakh, owing to return of emigrants, and to marriages encouraged by the prosperous seasons; the amount remitted was the lowest since 1904-05. *Fishery* net licenses reached a record in collections; and *fishery leases* sold for the highest amount since 1904-05. The total fishery revenue increased by nearly two lakhs, though some waters were made over to the Irrigation and Forest Departments and to the Railway Company. The pearl fishery which had been depressed showed an improvement. *Miscellaneous revenue* collections increased by nearly four and-a-half lakhs, all items showing an increase, except the small sub-head of "Other Miscellaneous Land Revenue." The principal item of increase was one of nearly four lakhs, due to the payment of royalties of a little over a lakh, collected from native miners by the Ruby Mines Company, and to increase of production in the oil-fields. Survey fees nearly doubled, owing to special rates for surveys for rubber cultivation.

Customs.

47. Receipts from Customs rose eleven lakhs, and expenditure fell slightly. The net surplus of receipts over expenses was 130 lakhs, exactly the amount of the year before last. Export duties increased by sixteen lakhs in Rangoon, and by the comparatively large amount of three and-a-half lakhs in minor ports, on account of the shifting of the rice market from Indian to foreign ports, notably to the Straits Settlements and Java. Import duties decreased by eight and-a-half lakhs owing to the over-stocking in cotton and other manufactured goods last year. Increased duties on silver, tobacco, liquors and petroleum came into effect in February 1910, and had a certain effect at once in checking the import of cheap tobacco and cigarettes. The use of the bonded warehouse at Bhamo, on the

caravan route to Têngyüeh in China, declined, and the early extinction of this traffic is anticipated, as this route cannot compete with the French Railway to Tali-fu.

Salt.

48. Orders on the special enquiry into the salt industry completed last year were issued by the Government of India to the effect that the industry should be gradually suppressed in those districts where it is small, and concentrated elsewhere, that its staff and their duties should be absorbed by the Excise Department and that the excise should be enhanced by 25 per cent. The year began with large imported and local stocks, the imported stock consisting mainly of cheap German salt. A slight rise in retail price and fall in wholesale prices stimulated trade, a record quantity of imported salt being taken from bond. Imports fell, owing to last year's heavy stocks, and the local manufacture declined, owing to the amount in stock locally and to the heavy and favourable rains, which diverted a number of salt-boilers to agriculture and interfered with the processes of the trade. English salt declined to vanishing point in imports and in sales, the bulk of the previous year's import remaining in bond, and the year closed with a good market shared almost entirely between the local product and the German article.

Excise and Opium.

49. Excise revenue and expenditure both decreased and the net surplus fell by one and-a-half lakhs of rupees. Excise revenue excluding Opium showed a small and normal increase, of which the principal features were the increase in the output of beer from the Mandalay brewery owing to regimental demand, the increased revenue from liquor shops owing to the examination, regulation, and weeding out recently in progress among them, and the decrease of distillery spirit in Thatôn attributed to the high price, and a possible increase in illicit liquor in the shops. Opium seizures remained about the same, but cocaine seizures trebled, and have reached an enormous total for the Province. Offences under the Excise and Opium Acts fell evenly with the fall in other offences, and the percentage of conviction rose.

Stamps.

50. The Stamp Act and Court Fees Act were amended during the year of report by the increase of some commercial and probate fees, and by the removal of some petty vexatious charges. The revenue which fell two and-a-half lakhs last year again fell by a lakh and-three-quarters. This further heavy fall was due to the concurrent action of three general causes: the annual fall in litigation since 1905, when Chetty withdrawals of Indian capital loosely invested in agriculture culminated; the heavy investment of capital in new industrial companies during the past two years; and the favourable rainfall in the year under report, which diminished borrowing, increased voluntary repayment, and deferred non-urgent litigation.

Assessed Taxes.

51. There was a normal rise in total income-tax collected, caused by a large rise in tax on salaries paid by companies, public bodies, associations, and private employers, and in part due to arrangements for collection of tax on the salaries of employés resident in Upper Burma outside the radius of collection. Assessments on private incomes continued to fall, but the total number of assessees rose. The fall was confined to eight districts where it was accompanied by a rateable fall in the number of assessees. The fall in assessments is attributed to depression of trade, restriction or winding up of Chetty business, and losses from speculation in paddy, and the rise in assessees to a rise in small incomes and greater care in collection.

Forests.

52. Forest revenue rose slightly, and there was a small fall in expenditure. The policy of transferring forests from Government agency to purchase-contractors has been put into effect during the year. The increase in net revenue would have been larger but for a depletion of stock in the Rangoon depôt last year.

(6) Vital Statistics and Medical Services.

Births and Deaths.

53. The area under registration was slightly varied, with a resulting increase of the population affected. The provincial birth-rate shews an increase of 1·07

per mille. The death-rate again shows a rise of nearly 2 per mille, the rise being mainly due to the epidemic of cholera which continued to spread in Upper Burma during the year, and to a generally unhealthy year in Upper Burma in other respects. The death-rate fell slightly in Lower Burma. Infant mortality, already large, rose uniformly throughout the Province, but this rise might be expected in a generally unhealthy year. Enquiries were made in one or two districts to ascertain the causes of the high infant mortality of the Province but no definite conclusion was reached. The manufacture of quinine in powders has ceased in favour of the tablet, which is found to be more popular with the people.

Plague.

54 Deaths from plague decreased very largely in Lower Burma. The return for the Province shows a large increase owing to a severe outbreak in Mandalay, with lesser outbreaks in other centres. A serious feature in Upper Burma towards the end of the year was the spread of the infection from the town to rural areas, especially in the Sagaing and Lower Chindwin Districts.

The application of systematic measures for keeping the rat population below the plague line, and for the improvement of insanitary buildings, to towns in Lower Burma under the supervision of Captain Brayne, I.M.S., met with apparent success. The results of these measures in Prome and Zigôn were most marked and their application to other infected areas is under consideration.

Medical Relief.

55. Nineteen new Hospitals and Dispensaries with 120 more beds were provided; new operation rooms were almost completed at Akyab, Henzada and Mônywa, operation windows and Mansfield Gas plant having been fitted at the last two hospitals. Four superior appointments and four appointments for Civil Assistant Surgeons have been added. Sanction has been accorded to the training of men of the Compounder class as "Ward Assistants," and of ten Burmese or Karen women annually at the new General Hospital, Rangoon, as nurses. The number of students at the Burma Medical School doubled, but the average quality has fallen and accommodation is deficient.

The number of Burmese as compared with other nationalities who avail themselves of hospital facilities is still regrettably low, but is rising and it is reported that more privacy and better accommodation are attracting the better classes of Burmese women to the hospitals as out-patients.

Sanitation.

56. The necessity for continued heavy expenditure on plague still forces Municipalities and other public bodies to reduce the amounts spent on sanitation. The Akyab water-supply works were brought into use during the year. Schemes for Minbu, Thayetmyo and Kyaiklat were approved, and schemes for Mandalay, Yandoon and Mergui are under consideration. The Pyinmana works are at a standstill. The tube wells at Nyaunglebin and Letpadan were repaired. The Toungoo tube was re-sunk to 215 feet without finding water. Some progress has been made in the use of cheap incinerators. The Sanitary Board held two meetings, at which the laying out of sites for railway towns was discussed.

Vaccination.

57. Vaccination, which had fallen by 5,000 operations during 1908-09, increased by 10,000. Operations at dispensaries fell. There was a very large increase in the number of operations verified by Native Superintendents. Verifications by Civil Surgeons continue to decline as Native Superintendents become more familiar with their duties. The cost of lymph rose, and the expenses of the Department increased. The vaccination of immigrant deck-passengers is for a time in abeyance, owing to the difficulty of finding a suitable site and providing the necessary accommodation for the work.

(7) Instruction.

Education.

58. Receipts from fees rose 33 per cent.; total expenditure rose slightly; expenditure on buildings fell. The concession of facilities for religious instruction, on certain conditions, in public schools, was sanctioned during the year.

In primary schools, numbers fell markedly for the first time in ten years, mainly in vernacular schools. Itinerant teachers were abolished, their loss increasing the necessity for a strengthening of the lower inspecting staff

Schemes for permanent salary-grants to vernacular teacher-managers, and for primary scholarships, were under discussion.

In secondary schools there was a net increase in numbers, in which a large increase in Anglo-Vernacular middle classes counterbalanced a fall in Anglo-Vernacular lower primary classes. These variations were attributed to the new system, by which only oral instruction in English is given in primary classes. Vernacular High Schools fell in numbers, owing to the loss of openings by the abolition of Itinerant Teachers. The Department continued to take over Municipal Anglo-Vernacular Schools, and had under discussion the question of providing better Principals for schools of this class from the ranks of the Indian Educational Service. Hostel accommodation is wanted in many Anglo-Vernacular schools. Governing Bodies were formed for High Schools.

The numbers of those seeking Anglo-Vernacular teachers' qualifications at the Syndicate examinations, increased both in the Normal schools and among outside candidates; but the number of outside vernacular candidates fell heavily.

Schools for special classes made a general advance, with marked increases in the numbers attending European and Mahomedan schools. The number of girls at school decreased slightly. In technical schools, there has been a growth in Slöjd training. The Engineering school at Insein had its courses put on a better footing, but fell in numbers and still fails to attract Burmese. In the Rangoon College although accommodation was temporarily increased, a large number of students had to be turned away, on account of deficient class and hostel accommodation. A scheme of rebuilding is under consideration. An Act for the incorporation of a Burma University was drafted, and was before a Committee of the Educational Syndicate at the close of the year.

During the year the University of Cambridge made Pâli an alternative for Latin in its previous examination, and the Calcutta University made Buddhist Law an alternative for Hindu Law for B. L.

The revision of the European Code, and of the prospects and pay of the Indian and Provincial Educational Services were under consideration. The Anglo-Vernacular High School Final Examination was held for the first time.

Want of funds has prevented appointments to the sanctioned posts of Inspectress, and Assistant Inspectress of Schools and of Assistant Inspector of Pâli, and the moving of the Insein Reformatory School to Thazi.

Literatur and the Press.

59. Publications rose eleven per cent. mainly in Buddhist religious works in Burmese or Pâli or both, and in works on Pâli Grammar and Burmese History. The rise was accompanied by a fall in Burmese dramas. Works on science and medicine increased and contained some valuable popular pamphlets on matters connected with public health. Presses increased in number, but newspapers and periodicals remained about the same. The chief features were the disappearance of some small jobbing Indian presses in Rangoon; the dissemination of Burmese presses and publications in districts unreported last year; and the influence of the Buddhist revival, shewn by the issue of Burmese and English periodicals of a religious tendency.

Literary Societies.

60. The opening of a Modern Chinese School by the *Chinese Empire Reformation Association*, and the existence of two Burmese religio-literary societies, the *Buddhist Propaganda Society, and the Young Men's Buddhist Association*, have been reported during the year. The *Buddhist Propaganda Society* maintains monks, has been granted permission to give religious education in Government and Municipal schools, maintains a press and publishes a magazine. The *Young Men's Buddhist Association* maintains a reading-room and library, conducts a monthly magazine for the benefit of the Anglo-Vernacular Burman and assists in maintaining the press of the first mentioned society.

Arts and Sciences.

61. The proposal to appoint a Provincial Art Officer was held in abeyance for lack of funds, and Mr. Tilly who has done the work voluntarily for many years resigned and was succeeded by Mr. Mackenna. The annual Provincial Exhibition in Rangoon was a success, and resulted in a show of excellent work in low relief silver, statuettes in silver and bronze, and ivory carving.

(8) Archæology.

62. The work of the Archæological Department was somewhat restricted for want of funds. Useful work was done in the classification and preservation of materials for future examination, and in examination of materials collected. Archæology.

BURMA SECRETARIAT, *the 18th January* 1911.

PART II.

NOTE.—The departmental reports and other references on which this Report on the Administration of Burma is based are noted at the beginning of each Chapter. The departmental reports do not all cover the same period. The Reports on the Administration of Civil and Criminal Justice, the Police, Prisons, the Registration Department, the Salt Revenue, the Reports on the Insein Reformatory School, Measures adopted for the extermination of Wild Animals and Poisonous Snakes, Lunatic Asylums, the Report of the Chemical Examiner and Bacteriologist, the Report on the working of the Government Medical School, Rangoon, the Resolution on the Reports on Village Administration in Burma, and the Resolution on the Reports on the working of the Indian Factories Act in Lower Burma, deal with events which took place within the calendar year 1909; the Shan States, Chin Hills and the North-Eastern Frontier Reports, the Land Revenue, Land Records, and Forest Administration Reports, the Season and Crop Report, the Report on the working of the Co-operative Credit Societies Act and the Report of the Department of Agriculture are concerned with the agricultural year from the 1st July 1909 to the close of June 1910. All other reports cover the twelve months of the official or financial year that ended on the 31st March 1910.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

REFERENCES—

Report on the Administration of the Shan States for the year ended the 30th June 1910.
Report on the Administration of the Chin Hills for the year ended the 30th June 1910.
Report on the Administration of the North-Eastern Frontier of Burma for the year ended the 30th June 1910.
Season and Crop Report of Burma for the year ending the 30th June 1910.

Physical Features of the Country, Area, Climate and Chief Staples.

POLITICAL.

Historical Summary.

Civil Divisions of British Territory.

Details of the last Census · Tribes and Languages.

For information on the foregoing subjects, reference should be made to paragraphs 1 to 19 and 56 to 75 of the Report on the Administration of Burma for the year 1901-02.

Form of Administration.

For information on this subject reference should be made to paragraphs 1 to 20 of the Report on the Administration of Burma for the year 1907-08.

Character of Land Tenures; System of Survey and Settlements

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

For information under "Character of Land Tenures," reference should be made to paragraphs 39 to 47 of the Report on the Administration of Burma for the year 1901-02.

For information under "System of Survey and Settlements," reference should be made to paragraphs 1 to 8 of the Report on the Administration of Burma for the year 1908-09.

Changes in the Administration.

The Lieutenant-Governor.

1. The Hon'ble Sir Herbert Thirkell White, K.C.I.E., was Lieutenant-Governor of Burma throughout the year.

Administrative territorial units.

2. A tract containing one village and measuring 1,920 acres was transferred from the Thatôn District to the Amherst District to which it naturally belonged. The boundary between the Myitkyina and Mogaung Subdivisions in the Myitkyina District was altered, but the change did not involve the transfer of any village. The boundaries of the Sidôktaya, Salin, Sagu, and Pwinbyu Townships in the Minbu District were altered by transfer of village-tracts; in the case of Sidôktaya to obtain a natural boundary for the township; and in the other three cases to bring together lands dealt with under the same irrigation systems. The number of village-tracts transferred between townships were: five from Sidôktaya to Salin; fifteen from Salin to Pwinbyu; seven from Pwinbyu to Sagu, and five from Sagu to Pwinbyu. The headquarters of the Pyuntaza Township of the Pegu District was removed from Pyuntaza to Daik-u, and the township was re-named the Daik-u Township. No new district, subdivision or township was created, and no administrative area was abolished.

Additions to and changes in the Administrative Staff.

3. A member of the Burma Commission was appointed to be Warden of the Yenangyaung Oil-fields. Two new appointments of Settlement Officer were created, one of which was listed as open to the Provincial Civil Service. The old rules as to the appointment of Government Translator were cancelled, and it was provided for by an addition to the cadre of the Provincial Civil Service. To provide better for certain posts, the cadre of the Provincial Civil Service was increased by nineteen places and the cadre of the Subordinate Civil Service was diminished by fourteen, but owing to lack of funds this change was not carried into effect during the year. To provide for the Staff of the Rangoon Hospital the cadre of the Superior Medical Service was increased by four places, two of which were filled by members of the Indian Medical Service, and two thrown open to private practitioners of the country. A new post was created in the Forest Department, by carving out a new Meiktila Division from the old division of Mandalay. Reorganization continued in the Subordinate Police and Forest establishments, and changes of importance in these and other subordinate departments are dealt with under the subject with which the department is concerned.

Relations with Tributary States and Frontier Affairs.

(*i*) *Shan and Karenni States.*

[*Southern Shan States:* 38 *States, area* 36,870 *square miles, population* 770,253, *tribute Rs.* 2,73,550; *Karenni:* 5 *States, area* 4,830 *square miles, population* 45,795, *tribute Rs.* 5,350; *Northern Shan States:* 5 *States, area,* 17,135 *square miles, population* 370,217, *tribute Rs.* 1,54,500; *Möng Mit: area* 3,361·14 *square miles, population* 44,708, *tribute Rs.* 20,000; *Hsawnghsup (Thaungthut): area* 840 *square miles, population* 7,493, *tribute Rs.* 400; *Singkaling Hkamti (Zingalein Kanti): area* 2,000 *square miles, population* 3,850, *tribute Rs.* 100; *Hkamti Löng (Kantigyi) or Bhor Kampti: area* 973 *square miles, population (approximate)* 11,000; *tribute Nil.*]

General.

4. The Shan States were peaceful and showed steady improvement in the year under report. The increasing interest shewn by the *Sawbwas* of Hsipaw, Tawngpeng and South Hsenwi was reflected in the growing prosperity of their

States. The zeal and enlightenment of the *Sawbwa* of Yawnghwè enabled him to ward off a period of distress from his people. And Kēnghkām flourished under the female rule of Sao Nang Tep Hti La. Some transfrontier movements forced themselves upon the attention of the States. There was considerable disturbance in the Chinese Shan State of Keng Hung, where the *Mawm* of Möng Sè was in opposition to the Chinese Authorities. A number of his relatives and followers were permitted to take refuge in the neighbouring State of Kēngtūng, but strict neutrality was maintained by the *Sawbwa* and his officials. Some unrest was caused by dacoits on the Siamese border, but they did not extend their operations into British Territory. The Chinese frontier was free from disturbance and organised crime, but the measures taken for the suppression of opium cultivation in Yünnan caused great hardship to cultivators in that Province, and led to an increased immigration of Chinese into the Northern Shan States in search of work, and to a notable fall in trade over the frontier. The peace of the border between Manglün and the Wa country remained undisturbed. British Officers in the frontier continued to maintain friendly relations with the Consular Officers in China and Siam and the local officers of the Chinese, French and Siamese Governments. The prosperity of the Southern Shan States and of Manglün in the Northern Shan States was marred by untimely rain and floods, resulting in widespread destruction of crops, scarcity and high prices in the Western States and in Karenni, which imports its food supplies and which suffered from a depression in its timber trade; but some relief was afforded by a demand for labour in the much needed Railway from Thazi, the construction of which commenced during the year, and by the assistance of the Chiefs and of Government. Cattle disease was prevalent throughout the States but not more than ordinarily destructive. Möng Mit was quiet and prosperous and its Chief as usual laboured zealously for the welfare of his people. Arrangements were made for the use of the savings of the Northern States on Public Works mainly communications and good progress was made in the work undertaken. In spite of the local derangement of the seasons and of the fall in trade, the States were generally prosperous, revenue rose, and the year concluded with satisfactory balances in hand. There is nothing to note as to the Shan States of Thaungthut, and Kanti in the Upper Chindwin District, except that the Chins carried off from Kanti last year by Kachins from unadministered territory have been permitted to return to their homes, and no further action is required.

Principal events of the year.

5. There were an unusual number of marriages and betrothals between members of the families of the Chiefs, of which the most important was the marriage of the *Sawbwa* of Mawkmai, who was installed during the year, to the adoptive daughter of the Yawnghwè *Sawbwa*. The Yawnghwè *Sawbwa* was appointed a member of the Burma Legislative Council. The *Sawbwa* of Kantarawadi in Karenni died leaving three lakhs of debt, and his mother and widow in difficulties, and the confusion in his State was accentuated by the flight of his Chief Minister, also bankrupt, to Siam to avoid his creditors. Owing to the youth and inexperience of his successor, the affairs of the State were put in charge of a Council under the Assistant Superintendent, and already show some recovery. Work began on the lower part of the Southern Shan States Railway, the most important work ever undertaken in connection with the States.

Internal affairs.

6. Crime continued light, violent crimes being few and unpremeditated; cattle thefts tried increased from 141 to 187 cases, but the increase was evenly distributed and, at least in part, due to better reporting; other thefts and petty crimes were practically the same as last year, but for increases at Lashio, partly accounted for by better police work, and at Taunggyi due to assistance given by the Courts to Indian merchants in some fifty cases, in recovering nearly a lakh of rupees from retail traders, who had obtained goods on credit and disappeared. The new Whipping Act was extended to the Shan States; the Arms Act to Lashio; and Gambling and Arms Rules introduced in some localities. The registration of arms was pushed on in the Northern Shan States, and in the Kodaung Hill Tracts. Some quarters for the Government Military and Civil Police were improved; their discipline and work were good. The number of Southern States which maintain State Police was raised to seven, by the addition of Mawkmai.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

All the Northern States maintain State Police, though those in North Hsenwi and Manglün are for the protection of the Chiefs only, and do no work in the detection of crime. The Hsipaw State Police was re-organised; and the State Police of South Hsenwi raised to 47 men, to provide a small guard for the Chief's son. The number of Civil suits filed rose by 4 per cent. to 772 in the Southern Shan States; the rise was due to institutions in Taunggyi and Yawnghwè among the immigrant natives of India, and the Inthas. Civil suits fell by 5 per cent. to 521 in the Northern Shan States; a rise in Lashio was counterbalanced by a fall in the abnormal figure of last year for litigation under the Kachin Hills Regulation at Kutkai. In spite of the fall in number, the value of suits rose in the Northern Shan States, due to a rise in value at Lashio. Executions increased in the Northern Shan States, notably at Lashio, where the procedure is gaining ground; but fell, owing to the general depression, in the Southern States. The Möngnai State Court was unsatisfactory, both in Criminal and Civil work, and was censured. The rainfall was excessive and badly distributed, and many places suffered from disastrous floods. In the Southern Shan States, the flood in the Yawnghwè valley was unprecedented; nearly one-third of the area usually planted with early paddy was still under water at the close of the year, and 200,000 baskets of paddy, half the wheat crop, and half the betel-vines were destroyed. In the Zawgyi valley the water was two feet higher than the record; Maw State lost over 15,000 baskets of paddy, and many thousands of pineapple. In Möngnai half the central valley was water-logged. On high lands the main paddy crop was generally good but damage was done by rain at harvest. There was a good harvest in Karenni but in the Northern Shan States excellent crops in Hsipaw, Möng Long, and Möng Tung were somewhat injured by winds, insects, and flood, respectively. Tawngpeng and North Hsenwi suffered much damage from floods in October, and in Manglün the *taungyas* did not burn properly in the wet jungles and the crops were a general failure. In Möng Mit the rains were poor, and the crops along the Shweli failed. As a result, in Yawnghwè and the Western States of the Southern Shan States there was widespread distress due to scarcity of food, floods in the villages, and sickness. The price of rice rose until it was dearer than wheat, which was used with potatoes to eke out supplies. The *Sawbwa* of Yawnghwè gave assistance by importing rice from Burma and by selling the State paddy. The scarcity and high price reacted in Karenni, which usually draws its food supplies from these States, and caused widespread distress there also, which was accentuated by a heavy fall in export of timber, and which occasioned a diversion from other pursuits to agriculture. In spite of injuries to crops and cattle disease, there was a general rise in prosperity in Hsipaw, Tawnpeng, and South Hsenwi, much of which was due to the zeal of their Chiefs, but in Mänglun, the *taungya* failure was followed by emigration, though nearly two-thirds of the revenue was remitted, and loans were given; and in January the treasury was empty and the tribute remitted for the year. In Möng Mit, an outbreak of cholera interfered with import to help out the harvest, and some scarcity ensued. Assistance was freely given in distressed localities by advances on the model of those under the Agricultural, and Land Improvement Loans Acts. In minor crops, the outturn of sessamum exceeded the demand. Potatoes and tea gave good crops and their cultivation is spreading, though the export of potatoes was diminished because of increased local consumption. Tobacco, *thanatpet*, sugarcane and betel, *passim*; oranges at Hsipaw; and oranges and betel on the banks of the Salween in Manglün did well. The opium, groundnut and cotton crops were poor, and the area is decreasing. In the Western Division of the Southern States, unskilled labour was plentiful on account of the floods, and found some employment on the construction of the Southern Shan States Railway, and on the Dewalachi Galena Concession. In the Eastern States, labour conditions were normal. In the Northern Shan States, owing to the new Opium Regulations in China, there were large influxes of Maingtha and Chinese coolies, and of Chinese carpenters to Tawngpeng. The statistics of trade with Burma are dealt with in paragraphs 163, 164 and 167. The abnormal floods in the Salween were favourable to timber and bamboos, but otherwise there was a general decline in the Southern Shan States. Trade along the Government cart road fell, owing to restrictions in the use of the road in the Meiktila District. Trade

with Siam fell, possibly partly because of the disturbed condition of the roads in the Siamese Province of Chiengmai. Local industries, weaving, umbrellas, shoes and sandals suffered from the import of manufactured articles. Exports of lac and hides fell heavily everywhere. In the Northern Shan States, the curtailment of opium cultivation in China has destroyed village markets, and the Indian rupee took a high exchange value, with the result that goods exported along the caravan routes fell heavily, and lines of empty mules coming and going were a feature of the year. Rinderpest was prevalent throughout the States, and was accountable for a large number of deaths of cattle; but there were no widespread outbreaks, the disease was confined to caravan routes in the Southern States, and appeared and died down sporadically in the Northern States. Internal revenues fell in the Western States of the southern group, but rose in the Central States, and were normal elsewhere, except for a slight fall in Kēngtūng. There was a decline due to mismanagement in Möngnai. Tribute decreased by Rs. 20,000 in Yawnghwè, and by Rs. 1,000 in Maw. In the Northern Shan States, there was a general rise in revenue, and the year closed with increased balances. In Möng Mit, the revenues improved and the deficit was lessened. In Karenni, owing to the troubles in Kantarawadi and elsewhere, no clear statement of internal revenues was obtainable. The town funds of Lashio, Taunggyi, and Loilem are in a healthy condition. There is nothing to remark about the Chindwin Shan States of Thaungthut and Kanti.

Public Works.

7. In the *Southern Shan States*, the Kēngtūng Subdivision formerly a separate charge was included in the Taunggyi Public Works Division; and Government expenditure sank a lakh to Rs. 3,69,126, of which Rs. 2,58,561 was spent on the Thazi-Taunggyi Road. Of the balance Rs. 1,10,565, the principal items were Rs. 43,260 on the Taunggyi-Takaw cart-road, Rs. 21,318 on the mule-roads from Takaw to Kēngtūng and thence to the Salween; Rs. 11,256 on laying out the Loi Mwe Civil station; and small items for a cemetery at Loi Mwe, demarcating the Kalaw Civil station, and a temporary hospital at Loilem.

Rupees 1,21,186 was expended by Chiefs, of which Rs. 73,103 was from State revenues, and Rs. 48,083 was tribute remitted. Except for two rest-houses, and the new bazaar at Mawkmai, this sum was devoted to repair and construction of roads, bridges, and tanks. Much was done to improve communications by private generosity. The greater part of Rs. 20,000, spent on works of merit in the Western States, went on roads and bridges. The deficit Rs. 2,217 on the Mong Pai bridge was raised by private subscription, and the Chiefs of Lai Hka and Möng-Küng spent Rs. 10,000 as a work of merit on stone bridges.

In *Karenni*, Government expenditure was confined to some repairs at Loikaw. The State works cost Rs. 47,261, and, besides upkeep of roads included two bungalows and a *sayat* built by the late Chief of Kantarawadi; a bazaar built by the Council; part cost of a large bazaar at Loikaw; four bungalows in Bawlakè State; four bridges and a new road.

In the *Northern Shan States* there is an Executive Engineer at Lashio, in charge of Government works throughout the States. A system was sanctioned during the year, by which Chiefs may obtain Government supervision for their works, on paying 5 per cent. establishment charges, and may lend money for Burma Government works in their States, the loans being set off against establishment charges. In the Hsipaw State, the death of the Minister in charge of State works, and the resulting confusion, led to the taking over by Government of all State works. The total expenditure rose by a lakh to Rs. 4,91,937, but of this only Rs. 3,72,804 was actually spent, the balance remaining in the hands of the Public Works Department. There were no public works in the Manglün State. In Hsipaw the Kyaukmè-Möng-ngaw section of the road from Kyaukmè to Namhsan was completed at a cost of Rs. 45,480; in Tawngpeng expenditure rose largely owing to an allotment of $2\frac{1}{2}$ lakhs to the Kyaukmè-Namhsan road; in North Hsenwi expenditure rose, owing to the approaching completion of the Hsenwi-Se-u road (Rs. 25,699), and to an allotment to the Höpok-Mansam road (Rs. 30,000). To meet expenses, Hsipaw paid in Rs. 1,67,571 from current revenue, which left the Public Works Department with half a lakh in hand at the end of the year; Tawngpeng balanced its account by Rs. 1,35,991 from current revenue and Rs. 1,36,348 from its works deposit; in North Hsenwi the department has

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

Rs. 16,482 in hand on the allotment for roads; and of the expenditure in South Hsenwi Rs. 27,239, the sum of Rs. 23,406 was provided from current revenues, and the rest is covered by deposit. The principal works of the year were the Kyaukme-Namhsan road in Hsipaw and Tawngpeng, on which great progress has been made, owing to the employment of 3,000 coolies from China; the Höpok-Mansam road, of which the first section, except bridges, was completed; and the Hsenwi-Se-u road, nearly finished. Besides these works, residences for some *Sawbwas* were under construction and repair; a large number of roads were repaired; and in South Hsenwi, where the Chief continues to show keen interest in road-making, some small bazaars and rest-houses were also constructed.

In the *Kodaung Hill Tracts* forty miles of road were opened; and in Möng Mit an arrangement was made with the Bombay Burma Trading Corporation as to the damage to weirs in the Shweli caused by their logs.

Mines and Minerals.

8. Three mining leases, to the Sizet, Mawsün, and Kanbani lead mines, worked by natives and on native methods were in force in the *Southern Shan States* during the year. At the Sizet mine, no extraction was done, but 234 baskets of ore previously extracted were smelted, and the resulting *bwet* (oxydised lead) was purchased by the Yawnghwè *Sawbwa* for potters in his State. The Mawsün mine is a small one. The Mawsün and Kanbani mines together produced by smelting 43,284 viss of refined lead, 22,519 viss of *bwet*, and 1,831 ticals of silver. Of this 37,996 viss of lead, 19,985 viss of *bwet*, and 29,800 viss of dressed ore were exported to Burma. In the *Northern Shan States*, the Burma Mines Company, Limited, completed their railway, equipped it with 8 locomotives and about 70 trucks, added to and improved their smelting works on the Mandalay Shore, and proceeded with the opening up to their mine, starting two shafts and a winze. They railed 21,558 tons of slag containing 46 to 48 per cent. lead and 1·8 ounces of silver per ton to the smelting works and mined 735 tons of ore, containing about 18·5 per cent. lead, and 13 ounces of silver per ton, from old workings and open cuts. At the smelting works 42,-99 tons of ore and fluxes were treated, producing 9,423 tons of lead, containing about 44,658 ounces of silver. The average prices realized in London were, for the lead £12-14-6 per ton, and for the silver £0-2-2 per ounce.

Prospecting licenses in the *Southern Shan States* increased to nine, by the issue of seven during the year. The Dewalachi Galena Syndicate spent a large sum in examining their area and other prospectors commenced work. In *Karenni* the Southern Shan States Syndicate continued their examination of their concession at Mawchi, and are satisfied as to the richness of the deposits of tin and *wolfram*; but are delayed by difficulties as to supply of labour and transport of the ore. In the *Northern Shan States* a prospecting license was issued for the examination of old lead workings in South Hsenwi State, and five applications were pending at the close of the year

In minerals other than lead, the Shweli Gold Dredging Company in Möng Mit has been at a standstill during the year; the tourmaline workings in Möng Long have had no success; and the Bawgyo salt well worked by Pagoda elders has exported 2,900 viss of salt revenue free.

Forest Administration.

9. In the *Southern Shan States* reserved forests increased from 264 square miles to 1,518 square miles by the addition of seven new reserves. Trouble was caused in the Taunggyi fuel reserves by fires, probably due to irritation in connection with grazing rules. The number of teak logs at revenue stations increased from 7,839 to 11,835; and 3,810 trees were girdled. Revenue increased from Rs. 42,185 to Rs. 63,290, and would have been greater, but for short extraction. Expenses increased from Rs. 78,951 to Rs. 87,148, mainly owing to the employment of an additional gazetted officer. Export to Saigon along the Mekong drainage under the authority of the Kēngtūng *Sawbwa* continued, the year's lease being for 1,600 logs.

In *Karenni*, the unsatisfactory prices of last year further declined; but, owing to the food scarcity, much timber mostly from last year was actually sold at a loss. The traders and the principal firm are closing their business, and demand for elephants has ceased. The scheme for protection mentioned last year has so far resulted only in discredit, owing to lack of supervision in Kantarawadi; and has not been put in force in Bawlakè and Kyèbogyi.

In the *Northern Shan States,* the important forests are leased to the Bombay Burma Trading Corporation, and only a small permanent staff under a ranger is employed. A lease for 15 years at reduced royalties has been granted to the Bombay Burma Trading Corporation, to work the Myitnge block of forests; Rs. 31,396 revenue was paid by them, and Rs. 1,602 was collected from other sources. A working-plan was prepared for 130 square miles of teak reserves, and 2,703 trees were girdled. Action was taken in Tawngpeng to expel Lishaws, who were doing great damage to forests in the higher ranges. Forest Rules were extended, and further proposals for reservation throughout the Shan States are in hand. There are complaints that the staff is inadequate.

Education.

10. Poverty, the lack of an indigenous system, and apathy as noted last year militate against Education, which remains a matter for Missionary enterprise and State assistance. The year was encouraging, the area dealt with being contracted to ensure better results. In the *Southern Shan States,* registered schools were reduced from 113 to 92, and cannot be increased in spite of applications until the inspecting staff is enlarged. Monastic schools fared badly in results grants, but some are promising. Considering the various agencies employed throughout the Shan States, the American Baptist Mission have schools at Taunggyi, Loilem, Möng Nai, and 3 in Kēngtūng in the Southern Shan States ; one at Loikaw in Karenni; two at Hsipaw, and one at Nam Khan for Kachins, in the Northern Shan States. The Taunggyi building is being enlarged; the Loikaw school (41 pupils) now teaches up to the seventh standard. The Möng Nai school did well, and a seventh standard has been opened. The Kēngtūng schools (340) showed good results. The Anglo-Vernacular School, Hsipaw (90), was extended up to the fifth standard. The Roman Catholic Mission schools at Hpaikon and Tha-o in the Southern Shan States showed good results, and a school established at Doli in Karenni already has an attendance of 35. As to schools established by private benevolence, Maung Po Ket's school was built in Yawnghwè State last year, at a cost of over Rs. 1,500, and the two masters are paid for by the founder; the lay school at Loikaw has increased to 75 pupils. As to schools maintained by Government, the school for the sons of Chiefs at Taunggyi (75), did well and was raised to a High School ; the Kantarawadi Council propose to take over the school at Wan Maü. The Lashio Vernacular school now teaches up to the fifth standard. The Tawngpeng State school at Namhsan, the Kyaukmè school with which a private semi-religious school amalgamated, and the schools at Nawngpeng and Hsumhsai are under supervision, and are doing well. Elsewhere in the Northern Shan States, progress is uncertain owing to frauds practised in the Educational Department in previous years.

Medical and Vaccination Departments.

11. Public health was good during the year under report; attendance at the Hospitals in the Southern Shan States decreased, except at Yawnghwè where there were special causes, and Kēngtūng, where the Hospitals are still making their way. In the Northern Shan States, the increases in attendance were normal. Small-pox was prevalent throughout the States but in a very mild form, and death rarely ensued. In two villages of Möng Nai, there were 200 cases without a single death. There was a single virulent outbreak in three villages of the Bre country of Karenni, of small-pox introduced from Toungoo, in which 31 deaths ensued. In Yawnghwè, owing to the floods, bowel complaints were rife and some cases were diagnosed as true cholera. But there was no epidemic, and the only result was the large increase (from 4,663 to 6,450) of out-patients at the Yawnghwè dispensary, which was completed during the year. Very little fever is reported ; there was no plague. A Sanitary Inspector and staff were stationed at Kyaukme in the Hsipaw State, where an outbreak occurred last year, but there was no recurrence, and their work was confined to precautionary sanitary measures. Vaccination decreased in Taunggyi, where last year's figures were the result of special effort, and increased, both in number and success, to normal in Kēngtūng where the Civil Surgeon made his own lymph. Elsewhere figures were normal and objection is now confined to a few prejudiced Chiefs and remote localities. The distribution and sale of quinine increased largely where known, and was introduced into the Eastern Divisions of the Southern Shan States. Rules were sanctioned by the Local Government for the sale and distribution of quinine *tablets* in the Shan States.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

(*ii*) *The Chin Hills.*

[*The Chin Hills: area (approximate) 8,000 square miles, population 87,189; the Pakku Hill Tracts: area (approximate) 2,250 square miles, population 13,116; Northern Arakan: area 5,233 square miles; population 20,682; and tracts in the Upper Chindwin, Akyab, and Kyaukpyu Districts.*]

Frontier Tribes.

12. A serious raid was committed in February 1910 on the village of Naungmo in the Homalin Subdivision, Upper Chindwin District, by a band from Makware in unadministered territory, in which thirteen persons mostly women and children were killed and a boy of seven made captive. Proposals are under consideration for an expedition to Makware after the rains are over, to inflict punishment and recover the captured boy. The expedition will traverse a region hitherto unexplored. Two minor raids were committed by transfrontier Chins in Northern Arakan, in each of which a girl was carried off. These have been recovered peacefully, and the fines inflicted are in course of collection. The villagers of Bahè in Northern Arakan, paid the final instalment of the fine of Rs. 3,000 imposed on them for the massacre of the Chief and 26 men of the Sabong tribe from the Chin Hills Administrative Division in December 1903, and the feud has been finally ended by the death of the Bahè Chief in Akyab Jail and his burial, and by the payment of the compensation to the Sabongs. The attitude of the transborder Chiefs towards British officers was satisfactory. The annual meeting of officers from Manipur, the Lushai Hills, and the Chin Hills did not take place, as there were few cases and the meeting was difficult to arrange. The Assistant Superintendent, Haka, Chin Hills, met the Subdivisional Officer, Lungleh, Lushai Hills, in December, and many pending frontier cases were disposed of. The Commissioner, Arakan Division, held a darbar in Northern Arakan in February 1910, for the purpose of maintaining closer and more friendly relations with the transfrontier people, and of making them better acquainted with the paid Chiefs and officials of the administered territory. The darbar was attended by a number of transfrontier Chiefs and was very successful.

Chin Hills Proper.

13. The Chin Hills continue peaceful. Crime is negligible and the only disturbance worth mention was an affray between two quarters of the village of Naring. Infanticide among the *Siyin* Chins is disappearing, the few cases rumoured leading to nothing. A half company of Gurkha Military Police was replaced by a newly enlisted half company of *Siyin* Chins who, in spite of an initial mistake as to pay, are reported to be well behaved, amenable to discipline, and excellent military material. The Civil Police raised in 1907 for escort duty is to be disbanded. Improved inter-village communications now make touring possible throughout the year. Crops were good, except for damage done in a few villages to millet by rain in August. Wheat largely increased and the Military Police purchased 274,250 lbs. this year, against a purchase of 173,000 lbs. last year, and a minimum requirement of 450,000 lbs. Mills were working at Falam, Haka, and Tiddim, but the rapid deterioration of the *atta* produced renders godowns and quarters necessary, to enable the mills to be worked throughout the year. The tribute, Rs. 44,590, was collected without trouble and outstandings, and was a little less than last year. The Chief of Falam bred three mules by the donkey stallion presented to him by Government last year, and has several mares in foal. The Bombay Burma Trading Corporation extracted 1,668 teak logs from the forests at foot of the main Leitha range. The demarcation of 1,632 square miles of forest for reservation was completed. The export of *lac* was small and its extraction was destructive. The Chin Hills have been formed into a separate Public Works charge, under an Assistant Engineer directly under the Superintending Engineer, Chindwin Circle. Funds were allotted for new Courts and offices at Falam, and much was done in the maintenance of roads, where stone is replacing wood in bridges. A wire suspension bridge was carried across the Manipur river. The health of the police was not quite so good as last year. The health of the populace was normal, though syphilis is spreading rapidly and leprosy has obtained a foothold. Petty trade into the plains is increasing, and the Chins now push boldly into the interior of Burma to buy cattle. The small Government Vernacular schools at Falam and Tiddim, the latter newly opened, did well, and good reports are given

of the schools of the American Baptist Mission. A Technical school at Falam is proposed. Education is obtaining a firm hold on the people who are rapidly adapting themselves. Chins were employed on coolie labour by the Public Works and other departments, and to bring up rations for the Military Police. Many now hold minor appointments under Government, and have paid employment in domestic service.

Pakôkku Hill Tracts.

14. The year has been one of the quietest on record in the Pakôkku Hill Tracts. The only events reported are the accidental destruction of a village by fire, and the murder of a woman. Serious damage was done by exceptionally heavy rains to the crops round Mindat, which were only just sufficient for local needs. The potato crop at Hilong was good, and the English vegetables in the Kanpetlet gardens were fair. Litigation decreased nearly to vanishing point. Tribute fell from Rs. 3,923 to Rs. 3,672, by striking out bachelors improperly assessed. Twenty-eight cutch licenses were issued. Two steatite quarries were working, from which four tons of steatite sold at Rs 214 per ton, used chiefly for slate pencils, were extracted. The Vernacular School at Mindat increased in numbers, opened a fourth standard, and obtained sanction for a new building. The dispensaries at Mindat and Kanpetlet did well; the latter is opening a *Chin* ward. The Mindat-Kanpetlet road was improved, and should now remain open all the rains.

Arakan Hill Tracts.

15. The Arakan Hill Tracts consist of the district of Northern Arakan, and of Chin Tracts in the districts of Akyab and Kyaukpyu. Their peace was only disturbed by some small raids across the frontier dealt with above. Northern Arakan continued under the charge of a Deputy Commissioner, assisted by an Inspector of Police and paid Chiefs, who did good work. Three local officials were rewarded for good service at a darbar in Rangoon. Four reports of sale into slavery proved to require no action. Nothing further has called for report.

(iii) The Kachin Hills.

[*Tracts in the Myitkyina, Bhamo, and Katha Districts.*]

Chinese Border.

16. The only disturbance to note on the Chinese border was a raid on certain villages, in the unadministered tract in the basin of the Irrawaddy within our sphere of influence to the north-east of Myitkyina, by the Chief of Teng Keng a village on the Upper Salween in China. The first frontier meeting between the Chinese local officials and those of Myitkyina was held at Sima in December 1909, when twelve frontier cases were disposed of, and steps taken by the Chinese authorities to check robbery in the Kaoliang Pass. The success of the meeting was chiefly due to the presence of Mr. Rose, the British Consul at Têngyüeh. The usual frontier meeting was held at Nawngma, at which the chief features were the appointment of Frontier Deputies from China to form Joint Courts with the Assistant Superintendent, Sinlum; and the acceptance by the Chinese *Taotai* and Prefect of the principles of the Track Law, and of a scale of compensation to be adopted in settling frontier cases. The Chinese posts at Maruchintaung and Nampaung exercise a repressive effect on the Chinese Kachins.

Unadministered Territory.

17. There were no crimes or disturbances on the Bhamo frontier due to trans-frontier men. In Myitkyina, there were two murders committed within British territory by Kachins from the other side of the border, in one case to get a head to cure sickness, and in the other case in revenge for an opium seizure some years ago. Six transborder Kachins carried off a woman who had been the slave of their headman; but the woman was rescued and the matter brought to a satisfactory conclusion. The Assistant Superintendent of Mogaung settled a longstanding and bloody feud between the Shadan-Lapai Kachins and the Marip tribe in unadministered territory. Some thieves in Sima stole two buffaloes from Mongtien in China, but were detected at once and the cattle restored. Twenty-five slaves from the Hukong valley sought protection from Government, and were given their liberty. The transborder Sadans paid the compensation agreed upon in the Tingaw case, mentioned last year; and the Sana Kachins paid all the

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

fine imposed upon them, except Rs. 200, which they say they are unable to pay. Thirty-four cattle were stolen, of which all but four were recovered. Our relations with transfrontier Kachins have been excellent, and bid fair to develop into steady friendship. The Gold Dredging Company has contributed to this, by employing and paying good wages to transfrontier men; and a darbar held at Myitkyina by His Honour the Lieutenant-Governor in December 1909, at which many Kachin Chiefs from both sides of the border were present, was most successful in promoting good feeling.

Internal Administration.

18. The year shows internal peace and progress. Criminal cases fell in Bhamo, and Katha, and rose in Myitkyina from 107 to 145. But kidnapping and slavery cases were stationary, and of the ten murders, the only violent crimes reported, only one, a case of poisoning and robbery by an old offender, showed the taint of true criminality. In Katha and Myitkyina, the tendency, increasing with security, to live in isolated huts was checked. Civil work fell throughout the tracts from 272 to 194 cases. The tribute Rs. 45,879 (Bhamo Rs. 22,367, Myitkyina Rs. 20,704, Katha Rs. 2,808) was Rs. 1,094 in excess of last year, and was collected without difficulty. Opium cultivation increased in Bhamo and Myitkyina owing to high prices in the frontier, and important seizures aggregating 7,409 tolas were made in Myitkyina, but no seizures took place in Bhamo, or Katha, in which districts excise interference with Hill Tribes is forbidden. The jadestone exported was 70,179 viss value Rs. 2,15,782 against 72,616 viss value Rs. 2,42,844 last year; the season was brought to a premature close by a dispute between the lessees of the steam-pump, which ended in the stopping of the pump, the flooding of the mines, and the postponement of the survey by the Executive Engineer. Amber extracted rose from 670 viss value Rs. 3,280, to 2,162 viss value Rs. 5,070. The Burma Gold Dredging Company extracted gold value Rs. 4,90,953 during their year of account. A copper mine believed to be of value was discovered. An Australian Company obtained a lease in Bhamo to work alluvial gold on the Upper Mole. Village inter-communications were kept in good order. In Myitkyina Rs. 3,900 from Public Works Funds was spent on the upkeep of five frontier roads; a small stone bungalow was built at Pajao on the road into China from savings; and Rs. 681 was paid to 29 villages in rewards for good work upon communications.

Forests.

19. The settlement of the large Naunghu reserve proceeded, the sum of Rs. 2,700 being paid to the inhabitants of Taungbalaung in Myitkyina for the removal of their village from the reserve, with an additional Rs. 1,000 to the *Duwa* of Magan for a location for this village within his jurisdiction. The proposed Kaungmye and Nanaka reserves were advanced a stage. The Nammè reserve in Bhamo is awaiting settlement. Large quantities of Maibo seed (*Alnus Nepalensis*) were distributed to headmen of villages at elevations between 3,500 feet and 7,000 feet, as the commencement of an experiment to ascertain whether this tree will not increase the fertility of the soil, and, by afforesting rapidly, enable *taungyas* in which it is sown to be worked in quicker rotation. The income of the Forest Department from rubber increased from Rs. 7,257 to Rs. 14,156 and the extinction of the rubber tree by native methods of extraction is anticipated.

Condition of the People.

20. The seasons were very favourable, especially so in the central districts of the dry zone in Upper Burma. Floods in the Irrawaddy and Salween did serious damage in a few localities, but it was only in a small isolated area in the Shan Hills that any scarcity ensued. The especially favourable seasons in the dry zone, central districts, and along the western ranges of Upper Burma, led to a vast local increase in cultivation, and to a rise in prosperity reflected in the payment of old loans and in a contraction of new obligations. The combination of results was especially marked in Shwebo, where there was some scarcity of labour and difficulty in finding a market for the crops (swelled by new irrigation works as well as by favourable seasons), and where Agricultural Co-operative Societies showed a large expansion.

The gradual withdrawal of Indian (Chetty) capital from agricultural investment which has been a feature of late years continued, and (as last year) large sums thus withdrawn were invested in industrial companies of varied nature in the Province, the largest investment naturally taking place in oil. This movement is placing investment in land on a sounder basis, but contributed, by leaving the money market in the hands of the exporters, to a fall in the price of paddy which has again led to the holding back of stocks. The good conditions of the last two years, following on a decade of poor harvests in Upper Burma, have led to a decline in emigration and exportation of cattle to Lower Burma, and are already recalling emigrants to their homes. But the only evidences of falling off in labour in Lower Burma are a rise in wages in Myaungmya ; some scarcity of labour in Pyapôn at the harvest ; and an increase in Hanthawaddy, and to a less degree in Pegu, in lands worked by Indian tenants under Indian proprietors. The change from an isolated agricultural state to an open and increasingly prosperous commercial community might in this country, as elsewhere, lead to extravagance and indebtedness on the part of the populace. And the keen appreciation of the Burman for good clothes, food and housing, and his power of adapting himself have led to fears of this nature. But the investigations connected with the introduction of Co-operative Credit Societies show that thrift and saving are not alien to his character ; that his inability to compete with Indian labour is due on well known principles to the debased standard of living of the Indian immigrant ; that the tendency sometimes observed to lend on and deal in land is due not to any established vice of " land-grabbing " but to the lack of any other form of investment ; and that the agriculturist would be infinitely benefited by the provision of banking facilities in which he had confidence. The year under report shows a further rise in the prosperity, intelligence and comfort of the community, and has revealed the existence of natural checks which it is hoped may guard it in its slow transition to the conditions of a modern highly developed agricultural and industrial State. The birth rate rose, especially in Upper Burma, but was accompanied by a decline in urban rates, already low, and by an increase in the appalling rate for infant mortality in urban areas. The death rate fell slightly, but increased in Upper Burma where public health was somewhat unsatisfactory, being marked by an epidemic of cholera which passed from Lower into Upper Burma at the beginning of the year, and by plague in Mandalay. Plague was stationary over Lower Burma, and the preventive measures introduced in urban areas have been readily taken up by the people, and have much improved public interest in and knowledge of general sanitation. In spite of the unsatisfactory conditions of birth and death rates there has been a large increase of population. Death from cattle disease rose to a more normal figure, but the year was free from serious outbreaks and there was a large increase in oxen which are displacing buffaloes for agricultural purposes. Over-sea trade recovered from the contraction of last year, and export of rice rose largely ; the oil industry continued its expansion ; new gold and lead mining companies were successful ; and some of the numerous prospectors find a promise of success, but industries which show promise are hampered by difficulties of labour and transport, which the new Southern Shan States Railway will do much to remove.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REFERENCES—

Land Revenue Administration Report of Burma for the year ended the 30th June 1910.
Land Records Administration Report of Burma for the year ending the 30th June 1910.
Agricultural Statistics of India, Volume I.

Realization of the Revenue.

Demand, recoveries, remissions, and outstandings.

21. *Thathameda*, capitation tax, royalties on fisheries and minerals, rents of town lands, collections under the Village Act, survey fees, and other miscellaneous land revenue, are dealt with under Land Revenue Receipts in paragraphs 193 to 197. The present paragraph deals with ordinary land revenue alone. Irrigation charges are now credited annually to the Irrigation Department, instead of monthly, as heretofore. And, in connexion with these charges, it has been shewn that the figures for ordinary land revenue, for previous years, have been vitiated, by including these charges for one or more districts. Eliminating this error for the figures of last year, the *demand* of ordinary land revenue shows a rise from Rs. 2,57,89,315 to Rs. 2,61,47,395. The rise, 3·58 lakhs, is not so large as was anticipated in last year's report; it is less than the average recorded increase for the decade; and at first sight is irreconcilable with the enormous increase in assessed area, and with the known prosperity of the year. But a consideration of the influence of the floods, and, in a minor degree, of the variable weather along the hills, as detailed in the paragraphs under Weather and Seasons, clears the apparent discrepancy. In most districts there was a large increase in demand. The dry zone tract rose by Rs. 5,82,252; Thayetmyo District Rs. 4,176; Pyapôn, Bassein, Henzada and Myaungmya, Rs. 2,14,092; the Arakan Division Rs. 42,507; Amherst, Tavoy and Mergui Rs. 47,523; the irrigated tracts of Mandalay and Shwebo Rs. 1,17,849; a total rise of Rs. 10,08,399. The fall was in the Pegu Division, and in the Ma-ubin, Toungoo and Thatôn Districts, which were devastated by floods; and in the Frontier Tract comprising the Myitkyina, Ruby Mines, Katha and the Upper Chindwin Districts, where a general decline of demand ensued on irregular rains, drought, and cattle disease. Considering the large areas unassessed, or taxed at fallow rates, in the rich Lower Burma districts mentioned, on account of the floods, it is clear that without the floods the year would have established a high record of prosperity. Remissions rose from Rs. 1,00,745 to Rs. 2,23,298 and followed the line of the floods; though Rs. 3,390 in Amherst and Rs. 2,080 in Bassein were due to absconding squatters; and similar sums, in several other districts in Lower Burma, were remitted as erroneous assessments. The arrears at the beginning of the year were Rs. 4,483, of which Rs. 3,497 was collected, Rs. 970 remitted, and Rs. 76 left unpaid. The current collections were Rs. 2,44,070 less than the demand. Collections rose from Rs. 2,56,84,151 to Rs. 2,59,03,325. The increases in demand and collections were 3·58 lakhs and 2·19 lakhs. The amount outstanding at the close of the year rose from Rs. 4,483 to Rs. 20,788; but Rs. 8,112 or over one-third was due from Shwebo, where the low price of paddy and other causes made collection difficult; and Rs. 20,788 is far below the normal figure for outstandings in previous years.

Coercive processes.

22. Returns of coercive processes include *all* the heads of general land revenue. Notices of demand again fell from 37,854 to 31,331; but allowing for the fall in Akyab from 6,064 to 694, due to an error in last year's figures for that district, the actual number of notices of demand is about the same as last year. Warrants of attachment of property fell from 16,037 to 15,468; attachments and sales of immoveable property fell from 11,142 and 2,032, to 10,304 and 1,545; of moveables rose from 4,895 and 267 to 5,164 and 622. The numbers of warrants of arrest issued, persons arrested and committed to jail rose from 6,506, 1,777 and 28, to 7,419, 2,257 and 37. The amounts for

which process was taken out, and amounts recovered, fell from Rs. 9,97,423 and Rs. 8,15,797 to Rs. 8,99,215 and Rs. 7,44,014. Increases in all forms of process in the Shwebo, Tharrawaddy and Henzada Districts were respectively due to the unequal harvest, low price of paddy and delay in applying for remission in Shwebo; to a holding back of revenue in hopes of remission, in the flooded area in Tharrawaddy; and to strict treatment, necessitated by malversations, in Henzada. Warrants of arrest rose in Pegu, owing to fishery defaulters, but otherwise this district declined towards normal figures. There was a general increase in the attachment of moveables in the Irrawaddy Division, where defects in the collection of capitation tax are reported. In one district it is reported that the financial stringency of the past two years has led to anxiety to realise the collections before the first of April, resulting in premature remissions, faulty procedure, and unjust sales of land. This complaint has attention; but allowing for it and for the local causes given, the use of coercive process has fallen to very small dimensions; and testifies to the care taken by the revenue staff, generally in assessment, and particularly in adjustment within the flooded areas; and to the increasing content and prosperity of the Province.

Surveys.

Administrative.

23. The re-organization of the superior Land Records staff was completed by the despatch of three Assistant Superintendents on probation to Dehra Dun. Six probationers completed their year at Dehra Dun, and entered on a course of practical training for a year in the Province. Until these join their appointments, four districts continue under the supervision of Inspectors.

The annual correction of the 16-inch cadastral maps for revenue purposes is dealt with under the head of Supplementary Survey. The present and following paragraphs deal with surveys for the purpose of *revision*, where rapid changes in cultivation, or natural features, make annual correction of the standard map too difficult; *extension*, where areas not under cadastral survey are brought into cultivation; and for *towns*, *fisheries*, and applications for *lease*, where fresh survey is necessary.

It has been decided that future surveys of the character of extension and revision, shall be made by the district staff regularly employed in supplementary survey, which is to be strengthened, if necessary; and that only in most exceptional cases special survey parties, moving from district to district, shall be entertained. The resulting revision of special survey proposals, the large expenditure last year, and financial stringency have combined to reduce the year's output of *special* survey to very small dimensions. No further cadastral operations are to be undertaken by the Survey of India. In future, therefore, all surveys dealt with in the present paragraphs will be Provincial. During the year there was no demarcation work outside towns; *special* revision surveys were restricted to the three districts where settlement in progress made their continuance imperative; and no new *extension* surveys were undertaken. Special surveys in *towns* and *fisheries* were restricted, and the need for special *lease* survey was much decreased, by suspending their issue in the Pegu and Irrawaddy Divisions, and in the Amherst and Toungoo Districts, which leaves only seven minor districts in the Province, where this form of lease will be issued. Expenditure, compared with the previous year, is as follows:—

Particulars.	1908-09.	1909-10.
	Rs.	Rs.
Revision Surveys	96,381	23,173
Extension Surveys	36,944	717
Town Lands Surveys	16,685	8,552
Fishery Surveys	11,691	1,038
Lease Surveys by contract	15,946	10,702
Lease Surveys by paid Surveyors	16,908	1,056
Total ...	1,94,555	45,238
Sanctioned expenditure ...	1,52,900	1,70,400

CHAP. II—ADMINISTRATION OF THE LAND.

Revision Surveys.

24. The mapping and area work of the surveys by special staff in the previous year, in the Akyab, Amherst, Thatôn, Meiktila, Mandalay and Yamèthin Districts was completed during the rains of 1909. The four years' programme of revision surveys in the Hanthawaddy District was completed, except for the resurvey of 20,000 acres, which is left to the local survey staff; and the office work was finished at the beginning of the rains of 1910. Revision work, by the ordinary staff under the supervision of a special Superintendent, continued in Amherst, Thatôn and Yamèthin. Revision work, by a special staff, was carried out in Hanthawaddy, Yamèthin, and Amherst. The Hanthawaddy area included the survey of 12 square miles, in the catchment area of the Hlawga lake, which was of benefit to the Rangoon Municipality alone and of which the detail survey was left incomplete. The Yamèthin area included 2,500 acres, surveyed by the Survey of India training camp; and includes 30,000 acres, still to be surveyed. Small special revision survey establishments were sanctioned, for the districts of Kyaukpyu and Mergui. The five years' programme in Akyab was stopped, after one year's work, for want of funds.

Extension Surveys.

25. The mapping and area work of the open season of 1908-09 in Akyab, Sandoway, Tharrawaddy, Amherst, and Thatôn, was completed during the rains of 1909. A programme for three years' special surveys, including 30,000 acres in the Thayetmyo District, was drawn up and approved by the Financial Commissioner.

Town Surveys.

26. The office work of Town Surveys, undertaken in the previous year in the districts of Hanthawaddy, Tharrawaddy, Amherst, Pegu, Pakôkku and Mandalay, was completed during the rains of 1909, with the exception of six blocks in Pakôkku, the final demarcation of which was left over, and of the detail survey of 2·05 square miles in Moulmein, which was finished by a small special staff, under the local Superintendent, during the year under report. Beyond this, field work only took place in the Thatôn District, where the railway towns of Mopalin, and Hninpalè, and a small extension in Paung were demarcated and surveyed by a special staff; in Yamèthin Town, which was surveyed by the probationers under training; and in Magwe Town, which was demarcated during the year. Proposals have been made for the survey of the towns in the Yamèthin, Kyauksè, and Meiktila Districts by a special staff. Town Land Rolls in the Toungoo and Thatôn Districts, and in Moulmein made some progress.

Fishery Surveys.

27. Fisheries are examined, and the position of their boundaries and fixed obstructions determined and demarcated by officers appointed for the purpose, known as *Inkunwuns*. The practice of furnishing a small special survey staff to the *Inkunwun*, as at Pegu, (from which district, in consequence, no report has been furnished to the Department) was declared to be mistaken. The maps of the Hanthawaddy Survey of the previous year were reduced to the 8-inch, and 4-inch scale and printed; the 58 fisheries of the old Mandalay survey, were divided into 180, and fresh maps prepared from the existing fishery and cadastral maps, without the necessity of resurvey; and an *Inkunwun* completed an examination and demarcation for resurvey, of 242 fisheries in Tharrawaddy, last surveyed fifteen years ago.

Lease Surveys.

28. An applicant for a lease of waste lands, demarcates his area, and obtains a survey by the Department, on payment of a fee at a rate per acre fixed for each district. The usual form of lease is the *patta* for rice cultivation. In the year under report, the issue of *pattas* was restricted to seven minor districts, Akyab, Sandoway, Kyaukpyu, Tavoy, Mergui, Thatôn and Thayetmyo. Special surveyors were employed in these and two other districts, Hanthawaddy and Mandalay; payment was by contract, except in Hanthawaddy, where some of the men were in receipt of regular pay. Special surveys for leases fell from 5,871 to 1,947; the bulk of this small number consists of arrears in Arakan, rubber leases in Hanthawaddy, Thatôn, Mergui and Tavoy, and paddy leases in the Mandalay Canal area. The increase in the fees collected, is due to the disproportionate sums which an acre rate gives for large holdings, of which there was one of 3,000 acres in Thatôn for rubber; and three of 80,000 acres in Pakôkku for oil. The substitution of a sliding scale of fees is under consideration. The survey and allotment of leases in the Môn Canal area, where 15,000 acres remain for distribution, was postponed for want of funds.

Settlements.

General progress of Settlement.

29. Six sparsely populated hill districts, Northern Arakan, Pakôkku, Bhamo, Myitkyina, Salween and Ruby Mines, are unsettled. The remaining thirty-one districts have been settled by fully organised settlement parties, with the exception of Kyaukpyu, Sandoway, Lower Chindwin, and Myingyan, where summary settlements by Deputy Commissioners are in force. Five districts have been settled for a second time, and a third settlement of the Hanthawaddy District is in progress. The present term of each settlement is fixed at twenty years. During the year, two second settlements were sanctioned, and the intermediate rates, usual under standing orders, were brought into force; in the first circuit of the Thatôn District and in the Minbu District; by these the demand on a cultivated area of 687,071 acres has risen from Rs. 12,59,477 to Rs. 15,30,813. The increase per cent. in total demand is 23·53, for Thatôn and 19·89 for Minbu. The reports on the settlements of the Lower Chindwin and Pakôkku Districts were received at the beginning and end of the year. These settlements took three and five-and-a-half years to complete; the Pakôkku settlement was completed in the year under report. Three existing publications were consolidated into a single manual of instructions for Settlement Officers. Suggestions to abandon supplementary survey in precarious up-land areas with numerous varieties of crops, in favour of lump assessment on a collective area distributed by cultivators themselves, were under consideration and will be found referred to in paragraph 32 of this report.

Operations of the year.

30. Five settlement parties were at work throughout the year, and it was proposed to entertain two additional parties, in order to be in a position to introduce new settlements at once, on the expiry of existing terms; but funds did not permit of an increase. No. 1 Party was engaged in the second settlement of the second circuit of the Thatôn District; No. 2 Party on the first circuit of the third settlement of Hanthawaddy; No. 3 Party completed the first settlement of the Pakôkku District, and commenced work in the first settlement of Myingyan; No. 4 Party was engaged on the area irrigated by the Canal lately completed in Shwebo; and No. 5 Party was engaged on the second settlement of the Meiktila District. Expenditure, exclusive of Rs. 32,000, the estimated annual settlement share of the office of the Commissioner of Settlements and Land Records, rose from Rs. 4,69,975 to Rs. 4,85,054; the area completed rose from 1,046,917 acres to 1,054,538 acres; and cost per acre remained at seven annas, the figure of last year. These settlements are all on the large circuit system of Upper Burma, requiring two years or more for completion, instead of on the annual block system, hitherto adopted in the Lower Province, and the annual area dealt with is about three-quarters of the area, which the Settlement Officer could take up under the annual block system.

Settlements in progress.

31. *No. 1 Party* completed its second and last field season in the Paung, Pa-an and Hlaingbwè Townships of the Thatôn District, containing nearly 400,000 acres of cultivation, of which a considerable area had been brought roughly under supplementary survey since the first settlement. Crops were measured in 1,485 areas, compared to 1,152 last year; the irrigated crops in the Pa-an Township were examined; *kaing* crops were measured on six islands in the Salween; and the re-classification of rice and garden lands in the Hlaingbwè and Pa-an Townships was completed.

No. 2 Party made great progress during the recess, in preparing field to field holding registers for all *kwins* in the Twante and Kyauktan Subdivisions of the Hanthawaddy District. Eight weeks from the middle of November were spent in measuring 1,447 crop selections, chosen throughout the circuit. Then two sections, each under an Assistant Settlement Officer, completed soil classification, and collection of statistics in the Twante Township; a third section collected further statistics in the Thôngwa and Kayan Townships. The party completed its third and last season on this settlement in May.

No. 3 Party, during the recess continued the compilation of registers and statistics for Pakôkku, employing a large additional staff of clerks, sanctioned for seven months, in order to complete the work. In October, half the party went on to Myingyan; the remaining half finally completed soil classification in

CHAP. II—ADMINISTRATION OF THE LAND.

December 1909, and measured some crops; then followed to Myingyan in May 1910; and settlement operations for Pakôkku concluded in the following month with the submission of the report.

The first half of the party, beginning in Myingyan in October, measured crops in nearly 4,000 fields; obtained selections of cotton, groundnut, and sessamum; marked out provisional assessment tracts, based on natural features, and staple crops; and conducted holding-marking, soil classification, and connected enquiries from February until April, when it went into recess, leaving a small section detached, which measured hot weather crops in the islands until the end of May. At the beginning of June the re-united party began the second part of the field season, in the dry tracts of the Pagan and Sale Townships. Owing to the poverty of these upland tracts, every effort is made to simplify soil classification; there are only three soil classes in each tract; in some *kwins* only two; and the soil class blocks are large.

No. 4 Party compiled registers, and statistics of the previous season's work on the Shwebo Canal during their five months' recess, and took the field as soon as the water permitted, in November. They reaped 1,400 selections of the winter rice crop, against 800 last year; and finally completed soil classification and field work; and had made good progress in office reductions at the end of the year.

No. 5 Party concluded its third and last open season in the Meiktila District. It carried out nearly 10,000 reapings; recorded tenancies, sales and mortgages entered into during the year; enumerated toddy palms tapped; marked holdings in 375 resurveyed *kwins*; and completed comprehensive enquiries into income, indebtedness, local customs, cost of living and of cultivation, sanitary and other requirements for each village. In office the classified area statement was completed for 1,887 of the 1,892 cultivated *kwins* in the district, and statistics were compiled for assessment proposals.

Land Records.

Administrative proposals.

32. The old official class of *taikthugyis*, responsible for survey and assessment within their circles, is being gradually reduced by death or retirement, but 138 still remain. They generally employ *taiksayès*, who keep up the supplementary survey, and perform the other duties of Revenue Surveyors, and whose salaries and expenses are usually paid by the Superintendent of Land Records, and deducted from the *taikthugyis'* commission on revenue. A proposal is under consideration to increase the supervision of the Superintendent over these surveyors, by relieving *taikthugyis* finally of all responsibility, throughout the Province, as has been done in some districts already.

Revenue Surveyors can often cope with revision, or extension survey, necessary within their districts, in the slack time between the assessment in February, and the beginning of the rains in May. But in nine districts of Lower Burma extensions and changes have been so rapid, that an increase of staff, by permanent surveyors without charges, to cope with these duties, has been approved, and will be brought into force when funds permit. In some of the dry zone districts of Upper Burma, there are large up-land tracts where, owing to low assessment and sparse cultivation, the survey staff must be kept low for economical working. The surveyor's duties are heavy, though changes in holding boundaries or names are few, owing to the annual necessity for a thorough revision of the cropped area, and to the apathy of the people in reporting changes. It is proposed to abandon supplementary survey in remote tracts of this nature substituting a fixed annual charge on each *kwin*, to be distributed by the cultivators of the *kwin* themselves, as is done with *thathameda*. Variant proposals are, to place a fixed annual charge on village-tracts, instead of on *kwins*; to give the Deputy Commissioner power to vary the distribution of the total charge between village-tracts; and to adopt the system without consideration of the *remoteness* of the tract concerned.

CHAP. II—ADMINISTRATION OF THE LAND.

Supplementary Survey—Rural areas.

33. The area under supplementary survey increased from a revised figure of 47,909 to 48,276 square miles. Owing to special extension surveys, the areas in Amherst, Akyab and Tharrawaddy, increased by 283, 106 and 26 square miles, respectively. Magwe showed a decrease of 52 square miles, included in Forest Reserves. Revision and extension surveys of considerable areas, were conducted by the regular staff in Pegu, Myaungmya, Toungoo, Thatôn, Mandalay Hanthawaddy and Shwebo. In Mandalay, Thatôn, Katha and Kyauksè extra surveyors were added to the regular staff for the work. In six districts the amount done by the regular staff appears unsatisfactory. Some progress was made in improving the demarcation of grazing-grounds in Akyab, Prome and Pegu; but in Thatôn, Pyapôn, Myaungmya and Pegu, efforts to expel encroaching cultivators have met with little success. Investigation into unauthorised alienation of grant lands is proceeding; but is slow and costly. Reports of alienations are often omitted in Upper Burma, where cultivators are seldom put to proof of title; and are falling in Lower Burma owing to the extension of the Transfer of Property Act.

Supplementary Survey—Urban areas.

34. The number of towns under supplementary survey increased from 80 to 139; and the area from a revised figure of 170, to 208 square miles. But the printed forms for the annual registers were not available until the end of the year, and, though some towns have maintained obsolete registers, or used their own forms, a number have done nothing since their survey in 1905-06. It has been decided to keep up the annual registers only, and not to keep up a permanent roll of town lands amended from year to year. It has also been laid down, that, when a town is not large enough to employ the whole time of its surveyors, they shall be employed upon contiguous rural areas, in preference to employment on the urban areas of other towns at a distance.

Cost of Supplementary Survey.

35. New forms for returns have been adopted in the year under report, in which the cost shewn is the whole cost of the district Land Records establishment. In the returns for last year the figures for cost did not include the cost of the establishment employed in urban areas, nor the cost of temporary surveyors employed on the annual re-demarcation of impermanent island holdings; and it is not clear that all *taiksayès* employed by *taikthugyis* were included. The cost of these items for last year is not given, and the comparison therefore with last year's figures is not of much value. Cost of superintendence and inspection fell from Rs. 5,06,612 to Rs. 5,03,048; or from Rs. 10·54 to Rs. 10·38 per square mile. Cost of the Survey Staff rose from Rs. 7,85,766 to Rs. 8,55,682; or from Rs. 16·34 to Rs. 17·65 per square mile. The total cost of supervision and survey, per occupied acre, rose from a revised figure of Rs. 1,375 to Rs. 1,429; and the percentage of cost to total assessment rose from a revised figure of 4·61 to 4·80. The total cost was increased by additions to the establishments of Revenue Surveyors in Thatôn, Toungoo, Amherst and Shwebo, necessitated by expansion of survey or cultivation. And, considering the factitious difference mentioned above, it appears probable that there was an actual fall all round in cost in the year's working.

Survey Schools.

36. The number of pupils at the nineteen Government Survey Schools, on the 31st March 1910, was 377, as against 381 last year. The daily average attendance was 379, against a monthly average of 383 last year. There was a marked fall in attendance at Katha, Mergui and Insein; a recovery in Mandalay and Mônywa; and an increase in Minbu and Pegu. The best attended schools were Minbu, Pakôkku, Sagaing, Meiktila, Pegu and Moulmein; among these, all but Pegu were noted for best attendance last year. The maximum number of pupils is 35; but in Minbu and Pakôkku, the number has been temporarily raised to 40. Of pupils admitted, 14 per cent. had passed the seventh or a higher standard; 17 per cent. had passed the sixth standard; and 69 per cent. passed the admission test. Three-fifths were sons of *thugyis* and agriculturists. The full number of scholarships allowed was allotted by Commissioners of Divisions at a cost of Rs. 14,388 for the year. The sum of Rs. 480 spent on prizes was discontinued; but a sum of Rs. 1,573 was given in bonuses. Deducting receipts, Rs. 5,106, from the expenditure, Rs. 40,171, the net cost was Rs. 35,065, or an average of Rs. 92·5 per pupil, against Rs. 34,735, or Rs. 91 last year. At the Syndicate

CHAP. II—ADMINISTRATION OF THE LAND.

Examination in Survey, Arithmetic and Revenue Law, the number of passes was 250, 143 and 211; and the percentages of passes to those who sat were 71, 44 and 65. These results show a considerable improvement, compared with last year, in Surveying and Arithmetic. The schools at Minbu and Sagaing were conspicuously successful.

Transfers of land.

37. The area of land sold fell by 17·77 per cent., compared with a fall of 4·62 per cent. last year. Only four districts in Lower Burma report increases, and of these only one, Myaungmya (11,554 acres), has an increase of over 500 sales, which is explained by the retirement of the *Chetty* from finance, and a consequent settlement of accounts. *The districts damaged by the floods*, Hanthawaddy, Pegu, Tharrawaddy, Ma-ubin and Thatôn, and the *Irrawaddy Delta* Districts of Bassein, Henzada, Myaungmya and Pyapôn, show the greatest, and very large decreases. Average price has been, during the year under report, and the two preceding years, Rs. 49·38, Rs 50·24 and Rs. 46·49. Excluding the Hanthawaddy District, which contains large residential and industrial areas, the prices are Rs. 46·48, Rs. 44·14 and Rs. 42·48. As in last year, sales in Upper Burma were few, except in Mandalay, Yamèthin and Kyauksè. The fall per cent. in the area mortgaged in the year under report, and in the two preceding years, was 12·83, 22·26 and 11·76. The figures do not include mortgages with possession, the most common form in Upper Burma, and hence the transactions recorded were almost entirely in Lower Burma. But the area recorded in Upper Burma *rose* from 2,770 to 5,649 acres on account of large rises in the Mandalay, Kyauksè, Meiktila and Yamèthin Districts. These were the Upper Burma Districts injured by floods and plague; the Lower Burma Districts, which showed large *decreases* in mortgages were, as under sales, those in the flooded area, and in the Irrawaddy Division. The average mortgage value, for the year under report, and the two preceding years, was Rs 34·87, Rs. 39·88 and Rs. 34·37 per acre. The area redeemed was 15·65 less than that redeemed last year, but, as in last year, exceeded the area mortgaged; the total area under mortgage decreased by 1·43 per cent., as compared to 1·50 per cent. last year. Bassein and Myaungmya show large areas redeemed; and Hanthawaddy, Pegu, Tharrawaddy, Pyapôn and Henzada, or again the districts affected by the floods, show large decreases in redemptions. The figures for areas sold and mortgaged are the smallest since 1901-02, notwithstanding an increase in area under supplementary survey from 29,870 to 48,484 square miles, and from 845,202 to 15,823,057 acres in occupied area since that year. The area mortgaged and sold has fallen continuously since 1905-06, with the exception of a rise in sales in 1907-08, when sales in Pegu and Hanthawaddy were exceptional; and from this it is argued that the most probable cause of the progressive decline yet stated is the deterrent effect of the proposed agrarian legislation, since notices of the intention of Government to deal more strictly with unauthorized alienations were published in the latter part of 1906. The general decline must rather be attributed to money movements, commencing in 1905-06 not yet defined; to the attraction of capital from agricultural to industrial investment, stimulated by the oil expansion; and to the prosperous seasons. The prosperous seasons also explain the sudden fall in mortgage values this year, if it is correct to hold that the lands which change hands in a good year are the poorer lands of rich *kwins*, and the richer lands of poor *kwins*; and that it is in a bad year that the richer holdings are brought upon the market.

Waste Lands.

Grants and leases for cultivation.

38. Owing to a further suspension of *patta* leases, the area of waste land granted or leased during the year practically represents land taken up for cultivation of special staples, or on special terms of exemption; waste land taken up for ordinary cultivation was held on squatter occupation, on payment of ordinary revenue, and is not shewn in the returns. But the area granted or leased rose slightly, from 36,859 acres to 36,970 acres. The principal increases were in Hanthawaddy, due to the issue of special suburban leases; in Pegu, due to a single lease of 2,000 acres needing large capital for embankment; in Kyaukpyu, where old and

new *patta* cases were cleared off rapidly; in Thatôn, due to the rubber boom; in Minbu, where special leases are issuing in the new canal area; and in Sagaing, where a single lease of 457 acres was given for the cultivation of *Nanatgyi* (*Agave Americana*) fibre. There was a large increase in applications for leases for *rubber* cultivation, mainly in the Tenasserim districts of Mergui, Tavoy, Amherst, Thatôn and Toungoo; less in the Northern Frontier districts of Myitkyina, Katha and Ruby Mines; and an application was made to lease the disafforested Tein Lak Valley in Northern Arakan. In Mergui 268 applications, covering 20,440 acres, were made, many of which were kept pending in anticipation of a revision of the rules. This revision checked the rush, noted last year, in Tavoy. In Thatôn forty applications, covering 7,919 acres, were filed, and thirty applications, covering 1,937 acres, were granted. Over fifty applications are pending in Amherst. In Myitkyina 750 acres were leased, and applications are pending in the Katha and Ruby Mines Districts.

Revenue-free grants.

39. The areas granted revenue-free for *religious purposes*, for the year under report, and the two previous years, were 265, 487 and 219 acres. Last year there was an exceptionally large grant of nearly 200 acres in Pakôkku, for the up-keep of the Pakan Sethu Shin image of Buddha, and the Tangyi Swedaw Pagoda. The areas granted for *public purposes* were 24·35, 48·77 and 20·74; and were, as usual, principally devoted to the construction of *zayats* (public rest-houses), tanks, and burial-grounds. The area granted as an appanage to village headmen (*thugyisa* land), rose from 1,019 to 1,207 acres. In Tharrawaddy, 199 acres were thus granted, out of lands resumed for unauthorised transfer; in the Upper Chindwin, *thugyisa* areas totalling a large amount, which had been wrongly assessed to revenue as the private property of the headmen, were restored to their proper status.

Government Estates and Wards' Estates.

40. There are no Government or Wards' Estates in Burma.

Revenue and Rent-paying Classes.

Land revenue paying classes.

41. The areas occupied by agriculturists, and resident and non-resident non-agriculturists, were 13,579,772, 962,522 and 1,514,925 acres; last year the revised figures were 13,405,037, 850,840 and 1,564,169; and the unrevised figures were 12,900,405, 842,379 and 1,547,706 acres. Owing to the difference between the revised and original figures for last year, the unrevised figures of last year are used for comparison. There is an increase of 5 per cent. in total area. The percentages occupied by agriculturists for the year under report, and the two preceding years, are 84·6, 84·4 and 84·2; omitting Hanthawaddy and Pegu, where the proportion of agriculturists is much below the average, the percentages are 87·2, 86·9 and 86·7. The areas in possession of agriculturists, resident non-agriculturists, and non-resident non-agriculturists showed increases of 5·3 per cent., 14·3 per cent. and a decrease of 2·1 per cent. compared with increases of 10·4, 7·7, and 10·1 per cent. last year. Owing to the transformation of part of the Hanthawaddy District into a residential and industrial locality, the proportion of land occupied by agriculturists fell in that district from 65·3 to 63·7 per cent.; Pyapôn showed a fall from 65·6 to 60·7 per cent. Owing to the difficulty of defining agriculturists and non-agriculturists, discrimination between these classes is left to local orders, and presents anomalies.

Tenants.

42. The area of land let at full rents to tenants in the year under report and the two preceding years, was 2,861,815, 2,852,600 and 2,657,433 acres. Tenants increased from 180,869 to 181,888, the increases in this year and in last year being 1,019 and 629. The number of tenants renting lands for five years and over fell from 28,905 to 28,622. The proportion of tenants, shown as renting land for five years or more, to the total number of tenants, in the year under report,

CHAP. II — ADMINISTRATION OF THE LAND.

and the two previous years, is 15·7, 16, and 12·9 per cent. Rents, for the year under report, and the two preceding years, are Rs. 10·5, Rs. 10·8, and Rs. 13·1 per acre. Tenancies in which rent is a share of the produce (the prevailing form of tenancy in Upper Burma), are excluded from the returns, as in these cases the tenant is a partner with the owner. No oppression by landlords or rack-renting is reported. An increase in Hanthawaddy in the number of tenants, who have been long in occupation of the same land, is reported to be due to the increase of Madrassi tenants in that district.

CHAPTER III.

PROTECTION.

REFERENCES—

Report on the Police Administration of Burma for the year 1909.

Resolution on the Reports on Village Administration in Burma for the year 1909.

Report on the measures adopted for the extermination of Wild Animals and Poisonous Snakes in Burma during the year 1909.

Report on the Police Administration of Rangoon Town for the year 1909.

Report on the Administration of Criminal Justice in Burma for the year 1909.

Report on the Prison Administration of Burma for the year 1909.

Report on the Administration of Civil Justice in Burma for the year 1909.

Note on the working of the Registration Department in Burma during the year 1909.

Note on the working of the Indian Companies Act in Burma for the year 1909-10.

Report on the working of the Rangoon Municipality for the year 1909-10.

Resolution on the Reports on the working of Municipalities in Burma during the year 1909-10.

Report of the Public Works Department, Burma (Buildings and Roads Branch), for the year 1909-10.

Report of the Commissioners for the Port of Rangoon for the year 1909-10.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the year 1909-10, Part III, Shipping.

Report on the Maritime Trade and Customs Administration of Burma for the year 1909-10.

Report on Government Steamers, Vessels and Launches in Burma for the year 1909-10.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.

Annual Statement of the Coasting Trade and Navigation of British India.

Statistics of British India, Parts II, V, VI and VIII.

Legislative Authority.

The Original Council.

43. By a Proclamation issued by the Governor-General in Council on the 9th April 1897 under section 49 of the Indian Councils Act, 1861, the territories for the time being under the administration of the Chief Commissioner of Burma were constituted a Province, to which the provisions of the Indian Councils Act, 1861, touching the making of laws and regulations for the peace and good government of the Presidencies of Fort St. George and Bombay, should be applicable; and the Chief Commissioner of Burma for the time being, Sir Frederic William Richards Fryer, K.C.S.I., of the Indian Civil Service, was appointed the first Lieutenant-Governor of the Province, with all the powers and authority incident to such office. By the same Proclamation the first day of May 1897 was specified as the date from which these provisions should take effect, and the number of Councillors whom the Lieutenant-Governor might nominate for his assistance in making laws and regulations was fixed at nine. The Council then constituted as legislative authority remained unchanged from 1897 up to 1909, when its personnel and powers were enlarged by the Indian Councils Act, 1909.

The Present Council.

44. The Council thus enlarged consists of the Lieutenant-Governor as President, and of a maximum of fifteen ordinary members. One member is elected by the Burma Chamber of Commerce; the remaining fourteen are nominated by the Lieutenant-Governor, with the sanction of the Governor-General. Not more than six members may be officials; the rest must be non-official; and at least four must be selected from the Burmese population, one from the Indian, and one from the Chinese Community. The Lieutenant-Governor may also nominate two, official or non-official, expert members, having special knowledge of subjects connected with proposed or pending legislation. The term of office for non-official members is three years; for official or expert members three years, or such shorter period as the Lieutenant-Governor may determine at the time of nomination. The Regulations under the Act provide that it shall not be lawful for the Lieutenant-Governor to nominate so many officials that officials shall be in a majority upon the Council.

CHAP. III.—PROTECTION. Extent of Powers.

45. The Legislative authority of the Council extends over the territories administered by the Local Government.

The restrictions to the exercise of its powers are, by virtue of section 43 of the Indian Councils Act, 1861, as follows:—

It shall not be lawful for the Lieutenant-Governor in Council, except with the sanction of the Governor-General previously communicated to him, to make Regulations or take into consideration any Law or Regulation for any of the purposes next hereinafter mentioned, that is to say:—

(1) Affecting the public debt of India, or the customs duties, or any other tax or duty now in force and imposed by the authority of the Government of India for the general purposes of such Government:

(2) Regulating any of the current coin or the issue of any bills, notes or other paper currency:

(3) Regulating the conveyance of letters by the Post Office or messages by the electric telegraph within the Presidency:

(4) Altering in any way the Penal Code of India as established by Act of the Governor-General in Council, No. XLV of 1860:

(5) Affecting the religion or religious rites and usages of any class of Her Majesty's subjects in India:

(6) Affecting the discipline or maintenance of any part of Her Majesty's military or naval forces:

(7) Regulating patents or copyright:

(8) Affecting the relations of the Government with foreign Princes or States.

By the Act of 1909, the Council is empowered to discuss the Annual Financial Statement of the Local Government, and any matter of general public interest; and members may ask questions, subject to conditions imposed by rules framed by the Local Government.

Further Powers of Council.

46. Under section 5 of the Indian Councils Act, 1892, the Lieutenant-Governor in Council may from time to time, by Acts passed under and subject to the provisions of the Indian Councils Act, 1861, and with the previous sanction of the Governor-General, but not otherwise, repeal or amend, as regards the Province of Burma, any Law or Regulation made either before or after the passing of the Indian Councils Act, 1892, by any authority in India other than the Burma Council. It is provided, however, that an Act or a provision of an Act so made by the Burma Council, and subsequently assented to by the Governor-General in pursuance of the Indian Councils Act, 1861, will not be deemed invalid by reason only of its requiring the previous sanction of the Governor-General under the above section.

Course of Legislation.

Work of Legislative Council.

47. During the Legislative year ending in March 1910 six Bills were passed into law as Burma Acts II, III, IV, V, VI and VII of 1909. These were the Burma Municipal (Amendment) Act, 1909; the Burma Boundaries Act (1880) Amendment Act, 1909; the Burma Embankment Act, 1909; the Burma Repealing Act, 1909; the Burma Fisheries (Amendment) Act, 1909; and the Burma Opium Law Amendment Act, 1909.

The first of these Acts, the Burma Municipal (Amendment) Act, 1909, dealing with barbed wire abutting on thoroughfares, and dispensing with the necessity of examining the complainant, on filing the complaint in municipal prosecutions in notified Municipalities, was introduced as a Bill in the previous year. The remaining Acts were all introduced during the Legislative year 1909-10.

The object of the Burma Boundaries Act (1880) Amendment Act was to make it clear that questions of title to land are not ordinarily to be enquired into, and are not to be decided under the Burma Boundaries Act. This was rendered necessary, as some officers of Government held the view that Demarcation and Boundary Officers, when holding an enquiry under the Act, had the power to

investigate and decide questions as to the ownership of land, thus usurping the functions of Civil and Revenue Courts.

The Burma Embankment Act repeals the Burma Embankment Act of 1887. The Act itself was drafted, mainly, to provide adequately for the impressment of labour in emergencies, and the prohibition of the unauthorised erection by private parties of embankments, which might endanger those already existing.

The Burma Repealing Act repeals the Rangoon Tramways Act, 1883, and the Upper Burma Municipal Regulation, 1887, which had both become obsolete.

The Burma Fisheries (Amendment) Act amends the Burma Fisheries Act of 1905, so that it can be applied, if necessary, to Upper Burma, prohibits the unauthorised use of explosives or poison, delegates certain powers to the Financial Commissioner and to Commissioners, and exempts fishery bonds from registration, which was an unnecessary source of worry and expense to lessees and their sureties.

The Burma Opium Law Amendment Act was framed chiefly to deal with persons who gain a livelihood by illicit dealings in opium. Under this Act they can be placed on security for good behaviour, and the fact of their earning a livelihood thus can be proved by evidence of general repute. The Act also provides for the entry and search of a vessel or conveyance, either by day or night, without a warrant, and for the exemption of such searches from the provisions of section 103 of the Code of Criminal Procedure.

Two other Bills, namely, the Burma Steam-boilers and Prime-movers Bill, and the Burma Process Fees Bill, were also introduced in Council, but were not passed during the Legislative year.

Indian Legislation affecting Burma.

General Acts affecting Burma.

48. The undermentioned General Acts affecting Burma were passed by the Governor-General in Council. No Regulations affecting Burma were enacted.

[*General Acts of* 1909.]

VI.—The Indian Volunteers (Amendment) Act, 1909.
VII.—The Anand Marriage Act, 1909.

[*General Acts of* 1910.]

I.—The Indian Press Act, 1910.
II.—The Indian Paper Currency Act, 1910.
III.—The Indian Penal Code, Amendment Act, 1910.
IV.—The Indian Companies (Amendment) Act, 1910.
V.—The Dourine Act, 1910.
VI.—The Indian Stamp (Amendment) Act, 1910.
VII.—The Court Fees (Amendment) Act, 1910.
VIII.—The Indian Tariff (Amendment) Act, 1910.

Extension of Acts to the Shan States.

49. Sections 38, 39 and 41 and Rules 4, 5 and 6 of Order XXI of the First Schedule of the Code of Civil Procedure, 1908, and the Whipping Act, 1909, were extended to the Shan States, including the State of Möng Mit and its dependency Möng Lang.

The Opium Act, 1878, was extended to the State of Möng Mit and its dependency Möng Lang.

Police.

Strength, distribution and cost.

50. The new rank of Sub-Inspector was much strengthened during the year. The transfer of the Police School from Toungoo to Mandalay enabled the number

CHAP. III.—PROTECTION.

of Sub-Inspectors under training to be raised to a figure large enough to cover casualties, a step hitherto impeded by want of accommodation, and to create a reserve of Sub Inspectors. A temporary shortage of strength, due to the absence of a reserve and to the want of sufficient accommodation at the school, was remedied by the promotion of 77 selected Head Constables to the rank of Sub-Inspector. Five Superior Officers retired on special pensions, one died, and one reverted to military duty. Five Military Officers were appointed by the Government of India as Assistant Superintendents; and five Probationary Assistant Superintendents, appointed in England, arrived. The sanctioned strength of the Civil Police force increased, in Superior Officers by two District Superintendents, two Assistant Superintendents, and two Deputy Superintendents; in Officers (Inspectors, Sub-Inspectors and Sergeants) from 1,237 to 1,279; and in men (Head Constables and Constables) from 13,812 to 13,893. The actual strength of officers rose from 1,126 to 1,246, and of men fell from 13,059 to 12,879, and the shortage between sanctioned and actual strength in men increased from 753 to 1,014. The sanctioned strength of officers and men was increased by 49 Sub-Inspectors, 7 Head Constables and 74 men, and reduced by 7 Inspectors. The principal reasons of variations were an increase of 47 Sub-Inspectors in the Police School; the extension of oil works in Yenangyaung and Syriam; night patrols in towns; and adjustments with the Military Police. Two new out-posts and one police-station were sanctioned, and two stations and two out-posts abolished. The Namtu station in the Northern Shan States, sanctioned last year, was established. The re-organization of the Railway Police resulted in the conversion of four out-posts into police-stations, and in the abolition of one police-station and 17 out-posts. Cost increased by Rs. 50,803, from Rs. 53,73,898 to Rs. 54,24,701, owing to the grant of bonuses as a Royal mark of favour in commemoration of the fiftieth anniversary of the assumption of the Government of India by the Crown; the revision of the scale of daily allowance granted to Inspectors; and the renting of house accommodation for officers of and below the rank of Inspector, for whom Government quarters have not yet been provided.

Recruitment and conduct.

51. The shortage of strength at the close of the year was 33 officers and 1,008 men, showing a decrease in shortage of 38 officers, and an increase in shortage of 265 men, as compared with the previous year. The increase in shortage was general throughout the Province. Enlistment fell by 692, from 3,042 to 2,350. The numbers of resignations, dismissals and discharges rose; large increases in resignations and dismissals in Pegu and Hanthawaddy being explained by the elimination of undesirables; in other districts the general increase is attributed to the discontent caused by restriction of promotion beyond Head Constable, the superior attractions of the Excise Department in work and pay for senior men, and insufficient house accommodation. These causes have a minor influence also in the fall of enlistments, the main causes of which are stated to be the high wages, compared to a constable's pay, in other callings; and the excellent agricultural conditions, and increased demand for labour, in the last two years. Desertions fell slightly, from the high figure of last year 233, to 214. Twelve officers and 517 men were dismissed from the force, compared with nine officers and 405 men last year. Departmental dismissals increased by three officers and 36 men; and dismissals on Magisterial conviction by 66 men. Three of the four districts, which show an increase in departmental dismissals, Hanthawaddy, Pegu and Bassein, are among the six districts which show the greatest fall in enlistments. Eight officers and 373 men were magisterially punished, of whom two officers and 63 men were retained in the force. Other departmental punishments were inflicted on 119 officers and 1,066 men, a decrease of six officers and an increase of 71 men Twenty officers and men were rewarded by special promotion, and 1,778 by other rewards, against 40 and 1,697 last year. There was no variation worth mention in the health of the force.

Education and training.

52. Literate officers increased from 1,103 to 1,188, but literate men fell from 10,926 to 10,827, owing to enlistment of illiterate Natives of India, and

the percentage of literates remained at 85, the reduced figure of last year; old constables passed through the District Training Depôts again fell from 2,942 to 2,810, but 2,532 qualified against 2,547 last year, an increase from 87 to 90 per cent. The number of recruits who entered the Training Depôts including 626 from last year, fell from 2,546 to 2,340; 1,390 appeared for the final qualifying examination, of whom 1,325 or 95 per cent. passed; the number of recruits at the depôts at the close of the year was 517. The number of officers and men who appeared at the Quarterly Examinations fell from 1,960 to 1,816, of whom 1,593 or 88 per cent., the same percentage as last year, were successful. The numbers of constables and recruits who passed through a course of Musketry Training, fell from 8,097 and 1,439 to 8,006 and 1,175; and the figure of merit for the Province fell from 66 to 64.

The Provincial Police Training School was moved from Toungoo to Mandalay, where the new buildings were taken over. The accommodation at Mandalay is ample and good, but the system of drainage needs further consideration. The strength at entry was 8 Probationary Assistant Superintendents, one Cadet Inspector, and 90 Sub-Inspectors; and these figures were 11, 1 and 88 at the close of the year. Ten Cadet Excise Inspectors with one Excise Instructor were attached to the School.

Buildings.

53. The allotment for Civil and Military Police Works for the year was Rs. 46,750, out of which Rs. 17,550 was the share of the Civil Police, as against Rs. 3,30,000 last year. With this sum all that could be done, besides providing the water-supply for the Police School, was to continue the construction of three stations and a lock-up, and put six lock-ups or cages in repair. The sum of Rs. 1,39,300, as against Rs. 2,05,000, was spent under the head of Petty Construction and Repairs; and provided quarters for 24 Sub-Inspectors, 45 Head Constables, 369 married constables and 71 unmarried constables; and covered some Minor Works. But quarters are needed to provide house accommodation for 30 Superior Officers, and 2,577 officers and men, to be constructed by the Public Works Department, and for 1,841 officers and men, to be constructed by the Police Agency; and the amounts estimated as being required under these heads are 20 lakhs, and six lakhs of rupees. There is no doubt that the absence of sufficient house accommodation for constables and head constables is a most important cause of the difficulty which has been experienced in obtaining sufficient and suitable recruits in many districts.

Crime and the working of the Police.

54. The number of cognizable cases pending at the beginning of the year was 4,236, and 51,175 were reported during the year. Of these 1,244 were refused investigation under 159 (*a*), Criminal Procedure Code, leaving 54,167 cases for disposal. Four thousand five hundred and ten were found false; 13,241 were mistaken; 3,591 were pending at the close of the year; and the balance of true cases investigated by the Police was 32,825. Adding the number of true cases of cognizable crime instituted direct before Magistrates, the volume for the year is 38,503 against 42,103 last year. The decreases in the various main classes of crime were: I—*Offences against the State, etc.*, 15; II—*Serious Crime against the Person*, 172; III—*Serious Offences against the Person and Property or Property only*, 119; IV—*Minor Offences against the Person*, 37; V—*Minor Offences against Property*, 1,669; VI—*Other Offences*, 1,588. The most noteworthy variations in offences were the *increase* in Murders and Homicides; and the large decreases in cattle theft (118) and theft (1,289). The only divisions that showed *increases* in cognizable offences were Meiktila (55) and Pegu (9). Dacoity increased in Toungoo, Thatôn and Hanthawaddy; and the southern part of Tharrawaddy suffered from a general epidemic of crimes. In Arakan an increase in Murder and Hurt is attributed partly to drink, but more to a custom of carrying clasp knives. *Violent Crime* rose from 1,054 to 1,056 true cases; a general increase in murders and homicides balancing a fall in dacoity, robbery and murder by robbers. Of 727 cases which came to trial, 501, or 47 per cent. of the total, were convicted, against 48 per cent. last year; fire-arms were used in 55 cases against 59 and 69 cases in the two previous years. *Dacoities* decreased from 116 to 107, of which 60 came to trial, and 32, or only 30 per cent., were convicted, a fall of 13 per cent. from last year, due to poor

CHAP. III.—PROTECTION.

results in the Pegu Division and Toungoo. *Robberies* fell from 391 to 360 and only 12 were accompanied with murder as against 24 last year. Tharrawaddy heads the list with 37 robberies, in four cases accompanied by murder. Two hundred and fifty-two cases came to trial, and 193, or 54 per cent., were convicted. *Murder* rose from 358 to 371, of which 238 cases came to trial, and 132 cases, or 36 per cent., were convicted. Tharrawaddy and Hanthawaddy rose from 35 and 23 murders to 57 and 39, respectively. *Cattle theft* fell from 2,590 to 2,472, of which 2,450 cases were dealt with by the Police, 1,360 came to trial, and 1,031, or 42 per cent., were convicted. The decrease was really larger, but during the year two districts adopted the general practice of entering thefts from grazing-grounds as cattle thefts, instead of classifying them as non-cognizable. There was a *rise* in the Pegu Division, and in Bassein and Myaungmya. *Theft* fell from 11,608 to 10,319, of which 10,135 cases were dealt with by the Police, 5,831 came to trial, and 5,118, or 50 per cent., were convicted. Fourteen districts showed a decrease of over thirty cases, and thirteen districts of less than thirty, the only districts to show an increase were Prome, Yamèthin, Shwebo and the Ruby Mines. *Excise* cases *rose* from 2,628 to 4,074, of which 4,028 cases came to trial and 3,615, or 89 per cent., were convicted. Thirty-two thousand two hundred and five tolas of *ganja* and 110,865 grains of *cocaine* were seized. The cocaine habit is reported to be spreading in Prome and Tharrawaddy, and to be ousting the opium habit in Pegu. *Opium* cases fell from 2,628 to 2,387, of which 2,297 came to trial, and 2,185, or 92 per cent., were convicted. Large quantities of smuggled opium were seized, including 12,551 tolas in the Southern Shan States, 7,238 tolas in Bhamo, and 13,181 tolas in Arakan. *Gambling* cases *rose* from 2,496 to 3,811, of which 3,689 came to trial, and 2,798, or 73 per cent., were convicted, a fall from 81 per cent. last year, mostly due to very poor results in Magwe and Myingyan. One hundred and nine professional gamblers were bound over under section 17 of the Gambling Act. *Arms* cases fell from 506 to 462, of which 434 came to trial, and 403, or 87 per cent., were convicted. *Arms Licenses* fell from 2,288 to 2,123, principally in the frontier districts of Upper Burma and in Mergui.

Detection.

55. Of the 38,503 cases of cognizable true crime, the Police investigated 32,825, or 85 per cent., as compared with 84 per cent. last year; in 21,764 cases a conviction was obtained. Excluding Class VI, the number dealt with was 24,945 against 26,957; of this number the Police investigated 22,258; 13,933 were brought to trial; and 11,770, or 53 per cent., were convicted, against 57 per cent. last year. The percentage of cases convicted to cases tried (85), was the same last year. The number of persons arrested was 46,413, of whom 44,163 were tried and 29,415 convicted. The amount stolen fell from Rs. 19,32,506 to the more normal figure of Rs. 16,31,751; and the amount of recoveries from Rs. 6,14,508 to Rs. 5,06,953, the percentage of recovery being 31 against 32 last year. In cases, persons and property recovered, success in detection remained about the same. The number of cases in which property was stolen and recovered fell from 15,939 to 14,718, and from 8,219 to 7,954; the amounts are given above. In *dacoities and robberies*, of Rs. 1,59,111 stolen only 9 per cent. was recovered, against 14 per cent. last year. Of cattle stolen, 4,498 head value Rs. 3,29,285, 2,746 head value Rs. 2,28,689 were recovered, or 69 per cent., against 62 per cent. last year. In ordinary *theft* the value stolen was Rs. 5,50,597, of which property to the value of Rs. 1,53,927 was recovered, or 28 per cent., against 24 per cent. last year.

Preventive sections.

56. The number of persons prosecuted under the preventive sections of the Criminal Procedure Code decreased from 2,396 to 2,056, of whom 1,552 or 75 per cent., as against 79 per cent. last year, were called on to furnish security. New rules were issued, under which the selection of persons for action will rest with the District, Assistant and Deputy Superintendents of Police. Of the 2,056 prosecutions during the year, 529 were thus sanctioned.

Surveillance and identification.

57. The new rules and registers, framed under the orders of the Government of India, for Police surveillance of bad characters, were issued during the year. Section 575, Criminal Procedure Code, was only used in five districts, and the number ordered to report residence under that section fell from 161 to 123. Absconders advertised fell from 1,514 to 1,399, and 386, or 28 per cent., were

arrested, compared with 25 per cent last year; the arrests were also effected of 533 absconders, advertised in previous years. The revision of the list continued. Old offenders identified, fell from 3,271 to 3,047, of whom 32 were identified after conviction; enquiry showed that persons previously convicted in non-cognizable cases, direct cases, and Village Headman's cases, are indiscriminately included. The finger-print bureau traced 1,333 persons from 7,002 search-slips sent in; and also traced 115 criminals gazetted "*whereabouts unknown*," and 59 *absconders*, by checking the indices of the Gazette with their slips. Beat Patrols increased from 1,491 to 1,499. The Police received adequate and willing assistance from Village Headmen and villagers, a large number of whom were rewarded, especially in Prome, Tharrawaddy and Thatôn. Escapes from Police custody rose from 32 to 44, of whom 35 were re-arrested. Five escaped convicts from the Andaman Islands were re-arrested, two of whom were shot in offering armed resistance to arrest.

Railway Police.

58. The sanctioned strength of the Railway Police was increased by the addition of a Headquarters Deputy Superintendent. The redistribution sanctioned in 1907 was carried out simultaneously with the introduction of revised orders for the co-operation of the Railway and District Police, and involved the conversion of four outposts into police-stations, and the abolition of one police-station and 17 out-posts, the sanctioned strength of the posts abolished being distributed among posts retained, where accommodation will be provided. Under the new rules, all offences occurring within railway limits, but beyond the distant signals of a Railway station, are registered and investigated by the District Police, unless they occur in running trains, or are offences under the Railway Act. Expenditure on the Railway Police increased by Rs. 174. The force was up to sanctioned strength, except for six places of Head Constable. One officer and 8 men were departmentally dismissed, or removed, as against 2 and 10 last year; 15 officers and 64 men were punished otherwise departmentally, against 14 and 80. Fifty-four recruits passed through the school during the year, of whom 22 were from last year. Of these 34 passed out and 12 were under training at the close of the year. Fifty-four constables entered the depôt, of whom 53 passed. The Quarterly Examination was passed by 34 men out of 35. Casualties increased by resignations from 43 to 55.

True cases of cognizable crime dealt with by the Railway Police fell from 1,608 to 1,209. Decreases are as follows in the various classes of crime:—III, 134, due to decrease of 136 in theft from waggons; V, 92, due to decrease in ordinary theft; VI, 172, due to decrease in cases under the Railway Act and Rangoon Police Act, with an increase of 90 in public nuisances. Of 730 true cases under classes I—V, 293, or 40 per cent., were convicted, against 33 per cent. last year. The lack of success is partly due to housebreaking, under which only 20 cases in 170 were convicted. Of 696 persons arrested under classes I—V, 591 were tried, and 352, or 60 per cent., compared with 61 per cent. last year, were convicted. Violent crime rose from 19 to 23, and contained 7 murders, in which 4 were undetected, and in 3 no conviction was obtained. Theft fell from 537 to 462, of which 213, or 46 per cent. against 35 per cent. last year, were convicted; of property stolen, value Rs. 30,574, 40 per cent. was recovered. Of 90 Excise cases, 84 were convicted. Of 89 opium cases, 84 were convicted. Opium seized fell from 13,760 tolas to 8,000 tolas. Absconders increased from 50 to 74 and only 8 were arrested, 65 previously convicted offenders were identified, one in jail after trial.

Military Police.

59. The sanctioned strength of the Military Police remained unchanged throughout the year. The actual strength at the close of the year was 15,849 officers and men, or 464 below sanctioned strength, recruiting having stopped in anticipation of reduction. A half company of Siyin Chins was enlisted to replace a half company of Gurkhas during the year. Expenditure rose from Rs. 56,15,998 to Rs. 56,80,483; conduct showed a marked improvement; departmental punishments decreased from 7 officers and 1,066 men, to 3 officers and 979 men; desertions decreased from 72 to 66; and judicial punishments from 77 to 71. Casualties rose from 663 to 713; the number invalided rose from 450 to 488;

CHAP. III.—PROTECTION.

men sent on sick leave to India fell from 663 to 649. Enlistments fell from 1,611 to 1,543, and included 14 Shans, 98 Karens, 29 Kachins and 30 Chins. Sikhs are difficult to get, and the force is still 288 short in this class, although 480 were enlisted during the year. The men of the Lower Burma Battalions are reported to be handicapped by the high price of foodstuffs, and to be taking their discharge freely. The re-armament of the force with the Mark IV Martini-Henry rifle was completed. Transport fell from Rs. 91,292 to Rs. 88,629. Forty-five transport animals were purchased, the casualties counting 103. Eighty-eight remounts were purchased against 91 casualties. The amount of the Public Works allotment, Rs. 29,200, was spent on improvements, and provision of semi-permanent buildings at seven stations; the replacement, at the disposal of the force, of the semi-permanent barracks, and native officers' quarters at Toungoo, further increased accommodation. The temporary structures, in which the Myitkyina Battalion are housed, are reported to need renewal. The allotment of Rs. 55,000 for *Petty Construction and Repairs* was made to cover temporary quarters, barracks, and sundries at ten stations. There was a decrease from seven to six in the number of escapes from Military Police custody.

Punitive Police.

60. A Punitive Police Force, consisting of a Sub-Inspector of Police, a Head Constable, and four constables, at a cost of Rs. 1,918-10-0, was imposed in the Prome District on the village-tract of Tatma, which was notorious for receiving stolen cattle.

Village Administration.

61. The number of village headmen in the Province rose from 17,985 to 18,063, owing to the increase of 82 headmen in the Lower Chindwin District, where appointment orders cancelled without sufficient cause are still being restored. The subdivision of circles in Upper Burma, as the hereditary headmen disappear, into separate village-tracts each under a headman, was most marked in the Mandalay and Myingyan Districts during the year. The principle is that the headman should be able personally to supervise the whole of his charge; but excessive subdivision, which unduly weakens the authority of the headman, has to be avoided. In the Sa'ween District some tracts are too large for personal supervision; in Akyab ten village-tracts were amalgamated into five owing to the dearth of suitable headmen. Much work remains to be done in defining, demarcating and mapping village-tracts especially in the Tenasserim, Sagaing and Mandalay Divisions.

The number of village headmen exercising special criminal and civil powers rose from 856 and 1,118 to 936 and 1,224; but the amount of fines inflicted by them, fell from Rs. 1,42,774 to Rs. 1,36,597. Decreases in the Hanthawaddy, Tharrawaddy, Prome, Bassein and Shwebo Districts; and increases in the Henzada, Minbu and Yamèthin Districts, amounted to more than Rs. 1,000. In Shwebo, the decrease is ascribed to the abolition of village fences and night watches, which were fruitful sources of fine. The number of cases before village headmen examined in revision, rose from 10,279 to 13,826; the number modified or reversed, rose from a revised figure of 539 to 711. But little can be drawn from a comparison of these figures, as they include revisions by Subdivisional and Township Officers, to whom powers were granted only last year; except that the increase in cases examined is not so large as might have been expected and that the small interference, 5·1 against 5·2 last year, indicates the good and intelligent use made by headmen of their powers.

The work done by village headmen in assessment and collection of revenue was again satisfactory; seven headmen in the Amherst District received certificates for zeal from the Commissioner in Darbar. The number of headmen dismissed or removed for fraud or embezzlement was, as usual, relatively small. In Hanthawaddy the trouble caused by the floating Indian population in the collection of capitation-tax is decreasing. In the Irrawaddy Division the preparation of capitation-tax rolls by headmen is still weak. Headmen show a

tendency to give better assistance in the administration of the Excise Law; large numbers have been rewarded during the year, especially in the Thatôn, Henzada, Tharrawaddy and Pegu Districts; but it goes against the grain with them to work secretly against fellow villagers, where life or property are not concerned. They continued to give invaluable assistance in the detection of crime; and have been furnished with leaflets containing the part which affects them of the new Rules for the surveillance and reporting of bad characters and suspicious strangers. The collection of vital statistics was fairly satisfactory, but the reporting of disease left much to be desired. Plague was included among the diseases to be reported; but several suspicious deaths in the Lower Chindwin District were not registered or reported, and were followed by plague in the villages concerned; and several headmen were fined for failing to report deaths from cholera in the Mandalay District. Village sanitation seems to improve, possibly to escape plague or cholera; in the Sagaing Division and in the Ruby Mines District the increasing practice of keeping cattle in an enclosure outside the main village is helpful.

Headmen removed or dismissed, suspended and fined, fell from 302, 61 and 711 to 275, 51 and 536; the decrease is satisfactory, particularly in the number fined. The position of headmen is still sought after, even where the emoluments are small; during the year, the Secretary of State sanctioned a proposal to raise emoluments to Rs. 180 per annum, where land was not available for revenue-free allotment (*thugyisa* land), by remission of revenue on land actually worked by the headman; but owing to lack of funds, no budget allotment could be made for this scheme, and it was not possible to proceed with the allied proposal to introduce the system of revenue-free, *thugyisa*, grants into Lower Burma. The number of villages fined under the Track Law, and the amount of fines, fell, as cattle theft has fallen, from 47 and Rs. 6,093 to 26 and Rs. 2,706; villages fined for other reasons, and the amount of fines, fell from 173 and Rs. 50,033 to 157 and Rs. 45,609. In three dacoities and robberies with fire-arms, in the Meiktila Division, the villagers organised a resistance which would have been almost inconceivable ten years ago; dacoits were successfully resisted in the only dacoity in a village-tract in Akyab, and two villagers were rewarded; and two Madrassi villagers were rewarded for successfully resisting robbers armed with fire-arms, in the Amherst District. But the tendency of the system to lead villagers to modify their evidence, through fear of a fine on the village for ineffectual resistence, was illustrated in the Sessions trials in the Meiktila Division.

Mortality from Wild Animals and Snakes.

62. The number of persons killed by animals decreased, though in Sandoway twelve were killed by tigers, of which one man-eater, since defunct, took five. The number of persons killed by snakes increased by 15 per cent., mostly in Tharrawaddy (where the Russell's viper is reported commoner), Hanthawaddy, Ma-ubin and the Lower Chindwin.

Deaths of cattle from animals, mostly tigers and leopards, and from snake-bite, increased evenly about 10 per cent. In Thayetmyo and Pakôkku, where more leopards have been seen, the largest numbers of deaths from animals occurred. Deaths from snake-bite increased considerably in Kyaukpyu and Hanthawaddy.

Sir Lauder Brunton's lancets were well used, both for man and beast. The number of cures reported is large enough to discount the doubt raised by the frequent uncertainty as to the snake which caused the wound. Injection with permanganate has attracted attention.

The numbers killed and rewards rose. Two thousand nine hundred and twenty-eight wild animals were killed against 2,535. Rewards rose from Rs. 42,287 to Rs. 45,308. Snakes killed rose from 10,021 to 12,179, though these last figures are uncertain, as rewards are not given for killing snakes. Four hundred

CHAP. III.—PROTECTION.

and seventy-four new arms licenses were issued, raising the number from 1,179 to 1,299.

Particulars.	Killed by tigers and leopards.		Total.		Killed by snakes.		Grand Total.	
	1909.	1908.	1909.	1908.	1909.	1908.	1909.	1908.
1	2	3	4	5	6	7	8	9
Number of persons ...	51	61	73	79	1,251	1,085	1,324	1,164
Number of animals ...	7,803	7,208	8,165	7,318	6,812	6,201	14,977	13,519

Rangoon Town Police.

Strength.

63. Sanctioned strength rose slightly to 1,068 by the addition of nine Sub-Inspectors, two Head Constables and twenty-three men. Four officers and ninety-three men resigned. The plague police were reduced in numbers, and the S. P. C. A.'s private police abolished at the close of the year, when there was a shortage in sanctioned strength of eleven men.

The rapidly increasing number of resignations (27 men over last year) is attributed to leave difficulties among the Indian Police and to over-work. Up to the last report there was a difficulty in enlisting suitable Burmans, owing to the demand in other occupations. This difficulty has disappeared, and the trouble is now to find suitable Indians, especially Sikhs, who are unavailable, perhaps because of the improvement in pay in the Army, perhaps because of recent openings for cultivation in the Punjab.

Three European Sergeants resigned on getting better employment, but six more were enlisted.

Conduct.

64. The number of men dismissed was practically the same as last year. Two men deserted from the training depôt, one because he had enlisted under a false name and the other in fear of punishment for theft. There were 313 departmental punishments mainly for breaches of discipline, and slackness on patrol, against 422 and 322 in 1908 and 1907. The number of those receiving police rewards decreased from 468 to 440. But seven officers and twenty-five men were commended by Magistrates, nine officers and eighty-one men earned "good service" certificates, and the statistics show a large increase in the work done in connection with offenders.

Crime.

65. The year was notable for the number of faction fights between the hooligan followers of two Indians, and between two Chinese factions. There was a general failure to satisfy the Courts as to the identity of the offenders in these fights, which had a perceptible influence in depressing the figures of conviction. The Indian factions are noted as constituting an ever present danger to the peace of the Town, but the Chinese factions have been quieted by one or two timely deportations under the Foreigners Act.

There was a large decrease in thefts partly due to the better lighting of the streets, the greater part of Cantonments having been lighted during the year. Further improvement could be effected by placing lamps at the ends of back drainage spaces, which are used in crimes against property, and by lighting Pazundaung quarter. An expert Burmese burglar was caught who had been responsible for thirteen offences in Cantonments.

The drug dens mainly for cocaine and morphia in Lanmadaw and Latter Street regions gave increased trouble, both because they furnish many of the increasing number of night prowlers arrested under sections 30 and 31, Rangoon Police Act, who are driven to petty theft, to buy the drug, and because it is impossible to get evidence of illicit sale, when the whole stock can be disposed of by flushing a water-closet, and the buyer will not give evidence for fear of stoppage of supplies. In spite of these difficulties prosecutions under the Excise and Opium Acts increased largely, with notable success. Bad livelihood cases decreased, as these are dealt with under the Rangoon Police Act. Rice theft has been

reduced to small proportions during the year, probably owing to the employment of wharf police in place of durwans. The number of river police cases of breach of port and harbour rules has nearly doubled, and the number of beggars arrested has halved.

Six hundred and twelve old offenders were identified against 547 in the previous year. There were 1,460 habituals on the registers at the close of the year, of whom 916 are in jail, 362 are lost sight of, and the rest are under surveillance. Only eight absconders were arrested. Relations with ward headmen were excellent, and the police worked well with the provincial police of neighbouring districts.

66. **Statistics.**

(i) *Number of Offences.*

Year.	Cognizable.			Non-cognizable.		
	Under the Indian Penal Code.	Under special or local laws.	Total.	Under the Indian Penal Code.	Under special or local laws.	Total.
1	2	3	4	5	6	7
1909	1,504	11,202	12,706	866	6,316	7,182
1908	1,520	11,811	13,331	1,111	7,699	8,810

(ii) *Property stolen and recovered.*

Year.	Stolen.			Recovered.	
	House-breaking.	Criminal breach of trust.	Total.	House-breaking.	Total.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs
1909	31,805	69,080	1,84,252	3,270	41,327
1908	15,547	33,529	1,50,716	3,005	37,930

(iii) *Results of Prosecution.*

No.	Offence.		1909. Convicted.	Acquitted, etc.	Absconded, undetected, etc.	Total.	1908. Total.
1	2		3	4	5	6	7
1	Murder	Cases.	2	1	4	7	9
2	Grievous hurt		45	9	10	64	30
3	Hurt with dangerous weapons		33	13	21	67	52
4	Dacoity		...	1	...	1	2
5	Robbery		4	1	4	9	7
6	House-breaking ...		43	5	68	116	93
7	Thefts		584	14	312	910	975
8	Excise Act		231	...	...	282	184
9	Opium Act		336	...	...	372	105
10	Gambling Act		4	2	...	6	17
11	Arms Act		13	9	1	23	14
12	Rangoon Town Police Act, sections 30 and 31.		...	...	...	462	347
13	Bad livelihood		...	...	...	12	23
14	European Police cases ...		...	...	...	3,644	3,043
15	Beggars arrested ...		...	...	...	217	493
	River Police—						
16	Breaches of Port and Harbour Rules.	Persons.	570	88	...	658	354
17	Rice thefts		8	3	...	11	63
18	Persons bound over for having rice under Rangoon Police Act, sections 30 and 31.		36	4	...	40	112

Criminal Justice.

CHAP. III.—PROTECTION. Powers.

67. (1) The Whipping Act, 1909, withdrew whipping powers from second class Magistrates, and abolished them in second convictions where whipping could not be awarded for a first offence.

(2) Benches in Rangoon, on which a first class Magistrate was not sitting, were empowered to try certain offences.

(3) District Magistrates were empowered to engage pleaders for poor accused in murder cases.

(4) Criminal Courts were empowered to pay expenses of return to persons sent up for trial by the Police, and acquitted, or discharged

Courts.

68. Criminal work fell during the year, and Civil work has fallen since 1906. Only a few changes in Subordinate Courts were necessary. The increase of Judges and Magistrates was from 310 to 316, and from 206 to 208, in Lower, and Upper Burma, respectively. Excluding Honorary Benches, 342 Natives (almost all Burmese), and 155 Europeans, exercised Criminal functions, compared to 345, and 146, in the previous year.

Offences reported.

69. Offences reported fell by 1,602 to 94,428. Railway cases increased largely, throughout the Province, owing to stringent action by the Company against trespassers. In Lower Burma, Police Act cases rose by 909, and offences under *Other Special and Local Laws* fell by 2,550. If these abnormal figures are excluded, the returns show a uniform slight decrease, in all classes of offences reported, in both divisions of the Province.

The percentage of cases returned as true to offences reported again fell, in Lower Burma, from 84·81 to 83·99. This percentage has been steady (87·45) for some years in Upper Burma.

Hanthawaddy and Tharrawaddy were responsible for a rise from 181 to 224 cases of murder, and attempt to murder, reported in Lower Burma.

Complaints summarily dismissed rose, in Lower Burma, from 2,151 to 2,268, but fell, in Upper Burma, from 956 to 906. But while action was taken under section 250, Criminal Procedure Code, in Upper Burma against 65 persons, in Lower Burma, where the volume of criminal work is three times as great, this section was only employed in 61 cases. In Lower Burma, the Honourable Judges remark that it may be doubted whether a greater use of section 250, Criminal Procedure Code, would not be much more effectual than frequent summary dismissal, in discouraging frivolous complaints.

Original jurisdiction.

70. *General.*—The figures, for the Province, for cases brought to trial (92,414), persons under-trial (165,256), convictions (94,349), and remaining under-trial at the end of the year (6,229), show a remarkable uniformity with those of 1908, and 1907. Average duration reverted to ten days in Upper Burma, and remained at twelve days for Lower Burma. But the figure for Lower Burma is fallacious and would be much higher, if Rangoon, where there is a great number of petty cases of short duration, was excluded.

District Magistrates.—Cases again declined, in Lower Burma, from 858 to 573; of this 173 is a fall in Rangoon. In ten districts the District Magistrate took under twenty cases, in six districts the number was under ten. The number of cases taken by District Judges is not shewn. In Upper Burma, cases declined from 572 to 493.

Honorary Magistrates.—Cases again declined from 24,265 to 23,155, with the fall in cases under *Other Special and Local Laws*. The percentage of cases in Lower Burma tried summarily (39·5) was nearly the same as last year.

Magistrates tried 158,288 persons as against 160,843 last year. The percentage of those convicted, committed, or referred was 60·3 in Lower Burma and 60·11 in Upper Burma, as against 60·4 and 59·12 last year. The percentage would be higher in Upper Burma, if it were not that 7 per cent. of the accused compounded.

Security.—Cases under the bad livelihood sections fell from 2,827 to 2,173. A remarkably large number of cases were in the Tharrawaddy District. The percentage of convictions fell, again, from 73·8 to 71·9 in Lower Burma, and from 75·26 to 66·10 in Upper Burma, despite remarks as to better preparation of cases.

Sessions Cases.—Sessions Courts disposed of 598, against 667 and 614, in previous years. The Chief Court had 49 committals, against 53 and 69. The percentage of convictions in Sessions Courts rose, in Upper Burma, from 64 to 69·74, and in Lower Burma from 53·5 to 56·3, but fell, in the Chief Court, from 53 to 47. The number of sentences of death referred was 110, against 131, of which 78, against 80, were confirmed.

Punishments.

71. *Whipping.*—Whippings decreased from 2,498 to 1,984, but an analysis of the figures, for Lower Burma, does not show that the new Act is responsible for more than a fraction of the decrease.

Imprisonment.—Though convictions fell to 1,286, sentences of imprisonment rose by 854. The rise was in Lower Burma, where sentences under six months increased by 423 to 6,953, and under fifteen days by 550 to 1,760. Fines in Lower Burma fell, under Rs. 50, by 1,041 to 10,926, and, under Rs. 10, by 3,114 to 39,931. The figures show two causes of the variations, the one the decrease of cases under *Other Special and Local Laws*, and the other a large increase of short terms of imprisonment, in Lower Burma, in place of fines.

Fines.—The amount imposed was Rs. 8,03,425, against Rs. 8,06,741 last year, but, while the number and amount of fines exhibited a normal increase, in Upper Burma, with a rise in realisations from 85·98 to 92·02 per cent., in Lower Burma, the number decreased by 4,169 to 52,431, and the amount from Rs. 6,05,609 to Rs. 5,99,697, the average fine rising, and realisation falling from 85·5 to 84·1 per cent.

First Offenders.—The figures were 299, in Upper Burma, and 711 in Lower Burma, against 248 and 754 last year.

Reformatory.—Only eight boys were dealt with under the Reformatory Schools Act, as against 28 last year.

Appeals.

72. *Number.*—The number of appeals rose suddenly this year, principally in Lower Burma, the total number preferred being 8,288 compared with 7,951 and 7,946 in the two previous years. There were 407 persons awaiting decision of their appeals at the close of the year, as compared with 375. Duration fell, by three days, to fifteen days in Lower Burma, and by six days, to twelve days, in Upper Burma, the latter large fall being due mainly to shorter durations in the Judicial Commissioner's Court.

Results.—The percentage of confirmation rose, in both Upper and Lower Burma, from 57·94 to 63·32, and from 67·9 to 68·5, respectively.

Revisions.

73. There was a substantial increase in Revisional work done by District Magistrates, in Lower Burma, during the year, the number of cases called for rising from 4,868 to 5,676. At the same time Sessions Judges only called for 1,098 cases compared with 1,443. The Chief Court was able to deal with 687 cases compared with 592. In Upper Burma, District Magistrates called for 2,989, or 126 more cases, of which in 1,687, or 49 cases more than in 1908, they had powers of interference under the Criminal Justice Regulation. The number of cases which came in revision before the Judicial Commissioner was 754, or about the same as last year.

Prisons.

Accommodation.

74. The accommodation for males was increased by 242 places, and for females was diminished by 77, as the result of the following changes :—

Jail.	Nature of change.	Number of Places.	
		Male.	Female.
Akyab	Additional accommodation	+ 80	...
Myaungmya ...	Female ward transferred to males	+ 36	— 36
Rangoon	Female ward (with ten places for hospital) transferred to Civil Debtors whose ward was transferred to males.	+ 56	— 46
Do.	Construction of ward for female under-trials ...	...	+ 4
Moulmein	New jail re-measured	+ 64	+ 7
Meiktila	Female ward transferred to Juveniles	+ 6	— 6
	Total ...	+ 242	— 77

CHAP. III.—PROTECTION.

The scheme for using the Meiktila Jail for juveniles (15—18) was put into practical operation during the year, 200 youthful offenders being dealt with. The proposals of the Select Committee for the working of this jail on the Borstal system were still under consideration. The system adopted in the interval, consisting of school, religious instruction, drill and the teaching of handicrafts has had results which are already said to be promising. The rapidity and facility with which handicrafts were learnt, and the interest taken in work and play were noteworthy. Casuals and habituals were kept on separate sides of the jail, but it is recommended that if habituals are sent they should be carefully selected.

In other jails the principle of the separation of habitual and non-habitual prisoners was kept well in mind during the year. The necessary structural alterations in two jails are complete, and in two jails are in progress. In six jails structural alterations recommended for this purpose are pending for want of funds.

The system of supervising habituals by paid agency only was followed in the Central Jails at Insein, Mandalay and Myingyan. But the Inspector-General is inclined to recommend a reversion to the convict-warder system, principally because men of suitable character for warders, who can read and write, cannot be obtained at the sanctioned rates.

Particulars.	1909.	1908.
Accommodation, Males	14,740	14,498
Accommodation, Females	354	431
Total	15,094	14,929
Daily average prisoners	13,681	13,871
Number at end of year	13,879	13,555

Prisoners.

75. There was an increase of 627 admissions, and a decrease of 446 discharges during the year, but the daily average in prison was 190 less than in 1908. The ratio of re-convicted prisoners to the total rose from 23·16 to 24·17, the highest ratio being Henzada (37·29), and the lowest Mogôk (7·35).

Ten boys under 15 had been previously convicted as against sixteen in the previous year.

Particulars.	1909.	1908.
Prisoners received, including transfers	33,665	33,038
Prisoners discharged	33,341	33,787
Prisoners released under remission rules	4,314	4,753
Prisoners re-convicted	4,428	4,251
Youthful offenders under 15, boys	63	57
Youthful offenders under 15, girls	5	2
Total	68	59

Discipline.

76. There was a marked decrease under all heads of offences, except "assaults, mutiny and escapes," which rose from 659 to 882, and "all other breaches of jail rules," which rose from 17,570 to 19,239.

The increase under the head of "assaults, etc.," does not, however, indicate a rise in these offences, but is due to classification of all assaults, however trivial, under this head. The increase in Miscellaneous offences is due to the enforcement of stricter discipline.

Of the 882 assaults two were fatal, one at Bassein, the other at Mandalay.

At Bassein seven convict-warders received contused wounds, and one died six days after. Seven habituals who took part in the assault were sent for trial, and four were convicted.

At Mandalay two habituals—carpenters—quarrelled over the ownership of a plane, and one in a sudden rage beat in the skull of the other with a hammer, with fatal results, and was sentenced to death for the murder.

There were only two escapes during the year, as compared with 11 and 6 in 1908 and 1907. The men are still at large.

Particulars.	1909.	1908.
Daily average number of convicts	12,954	13,164
Daily average number of convict officers	2,285	2,410
Number of prison offences	37,305	40,900
Number of prison offences dealt with by Magistrates	24	22
Percentage of punishments to daily average population	310·70	287·98
Number of prison offences committed by habituals	22,118	22,335
Number of floggings for Jail offences	113	124
Number of punishments inflicted on convict officers	9,830	10,336
Ratio of punishment to average number of convict officers	4·30	4·29

Financial.

77. The net cost per head fell from Rs. 52-1-0 to Rs. 48. The saving to Government, due to the employment of prison labour in "Jail works and repairs," increased from Rs. 17,725 to Rs. 24,906-7-0. The profits of the Jail Branch Press further increased, but are not included in the total cash earnings. The value of vegetables and farm produce decreased, the decrease of farm produce being due to a diminution in paddy crops at four Lower Burma Jails.

Particulars.	1909.			1908.		
	Rs.	A.	P.	Rs.	A.	P.
Gross cost of up-keep	8,83,137	0	0	9,34,055	0	0
Average gross cost per prisoner	64	8	10	67	5	5
Net cost of up-keep (deducting cash earnings) of prisoners ...	6,56,774	11	0	7,22,760	7	0
Average net cost per prisoner	48	0	0	52	1	0
Profits on manufacture	2,26,362	5	1	2,11,294	8	7
Profits of Jail Branch Press	2,19,601	0	0	1,84,273	0	0
Estimated value of vegetables from Jail gardens	71,587	0	0	82,650	0	0
Estimated value of Farm produce	26,393	0	0	28,187	0	0

Vital.

78. The health of the prison population was on the whole good, though the report is not so favourable as in the two previous years. Henzada and Bhamo again show the highest percentage of opium-consumers admitted to jail, namely, 34·69 and 34·35.

Particulars.	1909.	1908.
Daily average in confinement	13,681	13,871
Number admitted into hospital	4,240	3,840
Ratio per mille	309·92	276·84
Daily average sick	219	215
Ratio per mille	16·01	15·50
Deaths	221	184
Ratio per mille	16·15	13·27
Ratio per cent. of opium-consumers admitted	13·68	13·07

Civil Justice.

General orders.

79. A Rule Committee was constituted, under section 123 of the Code of Civil Procedure, with effect from the 6th September 1909. The Register of Civil witnesses was abolished, the practice of passing orders on applications for Letters-of-Administration before the *ad valorem* court-fee had been paid was forbidden, and instructions safeguarding the proceeds of execution sales were issued.

Administration of Courts.

80. *Cadre.*—The proposal for a separate District Judge, in each important district in Lower Burma, was rejected on financial grounds. The Subordinate Judicial Service was increased, by three places, to fill new posts. No final decision has been reached regarding the relief or strengthening of the Chief Court.

Courts.—(i) A Judge was appointed to the new township of Tantabin.

(ii) A Judge was appointed to the Thôngwa and Kayan Townships which were taken from the Township Judge, Kyauktan, the Township Officers, Thôngwa and Kayan, losing civil powers.

CHAP. III.—PROTECTION.

(iii) The Judge and Magistrate of the combined townships of Daik-u and Nyaunglebin were replaced by a Judge, with magisterial powers, for each township.

(iv) and (v) The Subdivisional Courts of Prome and Thatôn, were transferred from the Subdivisional Officer, Prome, and the Additional District Judge, Thatôn, to the Special Power Magistrate, Prome, and the Subdivisional Judge, Kyaikto.

(vi) The Divisional Judge, Prome, was appointed Additional Divisional Judge, Hanthawaddy.

Receipts and Charges are included, with those of Criminal and Revenue Courts, in one return. Receipts fell, with the general fall in all classes of litigation, from Rs. 27,66,296 to Rs. 26,86,044, and charges fell from Rs. 49,37,350 to Rs. 48,46,886, owing mainly to a fall of roughly 2¾ lakhs in building charges, of which 1½ lakhs was neutralized by a rise in *Salaries, Establishment and Contingencies*, which comprises over 40 lakhs of the total.

Buildings.—A list of further buildings and improvements, rendered necessary by the establishment of the Judicial Service, was given in 1908, but no building has been done, in Lower Burma, during the year under report, though complaints are still received. In Upper Burma, some minor alterations were made, but there is necessity for repair or improvement in thirteen Subordinate Courts.

Inspections.—In Upper Burma inspections were slightly increased. But in Lower Burma they are noted as insufficient, owing to the pressure of criminal work upon the Civil Judges.

Original litigation.

81. Institutions decreased in Lower Burma by nearly 5,000 to 49,699, and in Upper Burma by 1,649 to 21,743. This is in continuation of the movement by which, in Lower Burma, suits increased in 1902, 1903, 1904 by over 3,000 annually, in 1905 by nearly 10,000, and in 1906 by over 2,000, and diminished from 1906, showing decreases of nearly 5,000, of over 4,000, and of nearly 5,000, for 1907, 1908, 1909. With these figures must be grouped those for executions, which rose by over 6,000 annually in 1905, and 1906, but which have never varied more than a few hundreds since. After discussing various possible causes for these variations, the Honourable Judges conclude, that the most probable cause was, as suggested in last year's report, a prolonged withdrawal of Indian Chetty capital invested in Burma, with a crisis in 1905, though how the crisis arose there is nothing to show. The same fall in institutions in Subordinate Courts was noted in last year's reports for Bombay, and Bengal. The Madras Report is not available. In Upper Burma, which is not affected by Chetty capital to the same extent, the decreases put down to Chetty withdrawals are along the railway; and the districts which are off the beaten track, Pakôkku and the Ruby Mines are those in which other reasons for decline are given.

The increase in Small Cause cases was small, and institutions in the Chief Court rose heavily.

Character of Suits.—The percentage of suits for money or moveables fell in Lower Burma from 89·4 to 88·6, but rose in Upper Burma slightly from 89·1 to 90·9. Suits for immoveable property fell in both sections of the Province, the fall being most marked in Upper Burma (1,507 and 1,408 to 1,420 and 889 in the previous year). Mortgage suits fell slightly in both sections of the Province (2,683 and 276, to 2,665 and 236). In Upper Burma all the suits reported are usufructuary mortgages. In Lower Burma, this point is only dealt with in two districts; Thayetmyo reports that *nearly* all the mortgage suits are usufructuary, and Pyapôn reports that the usufructuary type is disappearing.

Value.—The value, for the Province, rose from Rs. 2,06,54,191 to Rs. 2,29,99,516, but in Upper Burma fell by one lakh to Rs. 34,56,629. The increase in Lower Burma is due completely to a large rise of Rs. 32,76,953, in the value of suits filed in the Chief Court (fifteen suits over a lakh compared with four in 1908). If this rise is excluded, the value for Lower Burma would show a fall from Rs. 1,70,99,128 to Rs. 1,62,65,933. The decrease in Upper Burma is at least partly due to an abnormal rise in large inheritance suits in Mandalay in 1908, in which year the value for Upper Burma rose by 3¾ lakhs. In the year under report the value of suits in Mandalay sinks by 1½ lakhs.

Disposal.—Suits for disposal decreased evenly, in both sections of the Province, from 87,551 to 81,484. Suits disposed of without contest fell slightly. The percentage of success in suits of both kinds was 68·29, against 68·24 in 1908.

Miscellaneous.—Miscellaneous cases rose in Lower Burma, in spite of the fall in litigation, from 8,590 to 9,065. In Upper Burma they fell by 282 to 2,122. The rise was wholly in Subdivisional and Township Courts, where cases are nearly all applications to remove attachment. As there was a fall in executions the rise seems out of place, but may be accounted for by the recent orders to register applications for arrest, and attachment before judgment, as distinct miscellaneous cases.

Pending.—Regular suits, pending at the end of the year, sank from 9,339 to 8,963. The number pending three months rose from 3,286 to 3,933, principally on account of the orders to keep mortgage suits pending until final decree. The pending miscellaneous cases sank slightly in Upper Burma, but stand at about the same figure as last year (1,206) for the Province.

Durations.—Durations, in both contested and uncontested cases, in both Upper and Lower Burma, rose one day throughout, except uncontested cases in Lower Burma, where the durations fell two days to forty-five. The abnormal increase of durations, in District Courts, in Lower Burma (150—205) and (98—120) is partly due at least to keeping mortgage suits pending until final decree. The average durations in miscellaneous cases, in Lower Burma, have fallen until they are uniform with the Upper Burma figure (44 and 42).

Execution of decrees.—Executions for disposal sank from 55,858 to 54,819, and the number pending from 8,539 to 8,384. But the number pending rose, in Upper Burma, from 2,086 to 2,117, the rise being partly explained by the large number of attachments of clerks' pay in some districts. The percentage of infructuous applications was higher, in Lower Burma, than in late years; nevertheless, the amount realised increased largely, in Lower Burma, from Rs. 19,22,405 to Rs. 25,45,960, the increase being in Township and District Courts. The number of judgment-debtors imprisoned fell from 1,098 to 881, almost wholly in Lower Burma, where the number was less than any year since 1904.

Insolvency.—The number of cases rose from 657 to 682, the whole rise being in Upper Burma. The number pending at the close of the year was 102 to 99. Though there is no increase in the number of applications, and though it is reported that petitions are almost all presented by debtors themselves, only to escape arrest or obtain release, and that the Act appears too elaborate for the present state of the Province, yet the figures show a real progress in its use. Creditors' claims fell in the present year from Rs. 5,61,805 to Rs. 4,46,843 for the Province, but this apparent fall is due to a most abnormal rise, in Upper Burma, last year.

Creditors' claims.	1907.	1908.	1909.
	Rs.	Rs.	Rs.
Upper Burma	31,013	2,02,278	58,531
Lower Burma	2,38,936	3,59,526	3,88,311

Assets realised in these three years are Rs. 2,321, Rs. 31,977 and Rs. 70,507, so that in the year under report assets realised have doubled. The amount of creditors' claims satisfied rose from Rs. 2,023, Rs. 4,572 to Rs. 60,866, but the increase was mostly in the district of Amherst, which contains the largest town under the Act in Lower Burma. Insolvency rules are under revision.

82. *General.*—The aggregate number of appeals disposed of (not including revisions), rose from 5,047 to 5,236. Pending at the close of the year were 1,558 to 1,467. Durations in the Chief Court, noted as high last year, rose further, by a month for original appeals, and by a week for second appeals. The average duration rose ten days in Upper Burma, and a week in Lower Burma, where the rise was in the Chief Court. The percentage of confirmation was 64·25 as against 62·12 in 1908. Appellate Jurisdiction.

District Courts.—Appeals for disposal fell from 4,489 to 4,376, the Upper Burma figures remaining stationary. The number disposed of was 3,732 compared

CHAP. III—PROTECTION.

with 3,783, leaving 644 pending, against 706, at the close of the year. The percentage of confirmation rose, in Lower Burma, from 61·6 to 64·3, and durations fell from 64 days to 60, but durations in Upper Burma rose from 58 days to 66.

Divisional Courts.—Appeals preferred, and the number before the Courts, fell from 619 to 594, and from 794 to 784, there being 175 pending at the close of the year, against 190. Durations fell from 119 days to 105 in Lower Burma, and from 81 days to 45 in the Upper Province.

The Chief Court.

83. *General.*—An Additional Judge was at work throughout the year, and a second Additional Judge has been appointed for a short period. The increase in work done is shown as follows:—

Nature of Suits.	By a single Judge.		Bench of two Judges.		Bench of three Judges.		Bench of five Judges.	
	1909.	1908.	1909.	1908.	1909.	1908.	1909.	1908.
Original suits	446	323	...	...	...	...	...	...
Executions	278	226	...	...	...	.	...	...
Insolvencies	148	114	..	...	...	...	...	...
Miscellaneous	199	203	...	...	...	..	...	...
First appeals	28	6	179	68	...	..	..	...
Second appeals	304	229	15	9	...	...	...	...
Revisions	184	177	2	1	...	...	...	...
Miscellaneous	61	82	30	11	...	..	..	...
References	...	2	...	10	3	6	1	...

Original Side.—Institutions rose by 79 to 517, and nearly doubled in value. Pending at the end of the year were 534, against 463. The percentage of success rose from 68·6 to 70·2; sales in execution fell from 27 to 27, but realised Rs. 3,56,477, against Rs. 2,65,275. The duration of contested cases fell from 433 to 408 days, and would be less, if it were not for the orders as to keeping mortgage and administration cases pending until final decree. There were 94 insolvencies pending at the end of the year, against 72 in 1908.

Appellate Side.—The percentage of confirmation for regular appeals fell from 71·5 to 66·1. There were 256 cases in revision before the Court compared to 252 in 1908, and the number disposed of was 186 compared to 178.

Particulars.	1907.	1908.	1909.
Regular appeals instituted	475	405	329
Regular appeals disposed of	460	312	331
Regular appeals, duration	297	280	326
Regular appeals pending	394	379	286

Privy Council Appeals.—Five were pending at the end of 1908, and five admitted during the year. Three were disposed of, in one of which the decision of the Chief Court was set aside.

Judicial Commissioner, Upper Burma.

84. There was an Additional Judge during eight months of the year. Appeals, and miscellaneous cases for disposal, rose by 9 and 15 per cent., but revisions fell 1 per cent.; cases disposed of rose 25, 12 and 13 per cent. under these heads; appeals, and revisions, pending at the close of the year fell by 10, and 16 per cent., but miscellaneous cases pending rose 35 per cent. The percentage of confirmation in appeal, and revision, fell from 68·97, and 77, to 65·98, and 74. Duration fell in appeals from 264 to 249, but rose in revisions owing to unusual causes. The Additional Judge disposed of 194 appeals, and 60 revisions.

Registration.

Administrative.

85. The revised Indian Registration Act, which came into force on the first of January 1909, contained no new provisions, and only necessitated a revision of

references. Beyond this, only a few minor changes were made in the Manuals for Upper and Lower Burma during the year. Non-official Registrars were increased to 21 by the addition of one in Hanthawaddy. The experimental office opened last year at Myaing in Pakôkku failed and was closed, and a new office was opened at Salè in Myingyan.

Deeds registered.

86. The total number of compulsory registrations affecting immoveable property fell by 1,510, or 3 per cent. (Lower Burma, 257; Upper Burma, 1,253), to 43,043, and the aggregate value, by Rs. 1,53,37,341, or 21 per cent., to Rs. 5,88,93,255. In Lower Burma, sales above Rs. 100 registered fell by 506, but sales below Rs. 100 rose by 73, and mortgages by 526, the net fall being accounted for by "Other instruments" and leases. In Upper Burma, sales under Rs. 100 rose slightly, and "Other instruments" (chiefly reconveyances of mortgaged land) rose considerably, the fall being due to a fall in sales above Rs. 100 of 612, and in mortgages of 864. Registrations of documents affecting moveable property decreased, in Lower Burma, by 302 to 5,043, but the value rose by Rs. 4,23,174 to Rs. 43,98,077. The rise in value was most noticeable in instruments of sale, etc., in Rangoon Town, Tharrawaddy and Pyapôn. In Upper Burma, registrations of documents affecting moveable property increased by 9 to 585, the value falling by Rs. 5,246 to Rs. 2,70,527, though, in Mandalay and the Ruby Mines, there were considerable increases in "Documents of sale, etc."

Causes of variation.

87. In the Pegu Division (almost all in Rangoon Town, Hanthawaddy, and Tharrawaddy) there was a fall in compulsory instruments over Rs. 100 of 428 in number and 57½ lakhs in value which covers the whole loss in Lower Burma. In Mandalay there was an increase of 5½ lakhs in "Other instruments," mainly reconveyances. These movements are mainly dependent on movements of capital in Rangoon, and almost all the variations were undoubtedly caused by the continued activity in company promotion of Rangoon in the year under report, when the large capital of joint stock companies paid up in late years was increased by no less than 52 lakhs.

Outside the influence of the Rangoon money market, in Minbu, Magwe, and Shwebo, almost all variations in the last few years are accounted for by activity in oil-well and irrigation schemes.

Omitting the figures of sales and mortgages for the districts named above, and allowing for the sale of two cotton mills at Myingyan for Rs. 2,10,000 in the year under report, the figures for the last four years, for both Upper and Lower Burma, show a slow and steady rise in the numbers of sales and mortgages registered, and in their average value, the only variation of importance being a large fall in mortgages, in Upper Burma, in the year under report. This fall is uniformly explained throughout the districts affected, Thayetmyo, Pakôkku and Lower Chindwin, as being due to good harvests.

A minor cause of variation was the realisation of money by local Chetties, necessitated by calls upon them, which affected the districts of the Irrawaddy Division, Thatôn, Kyauksè and Sagaing. One cause of these Chetty withdrawals is stated to be insecurity, caused by the proposal to enact legislation in restriction of the power of alienation of landholders throughout Lower Burma. This reason is given in the reports from Rangoon Town and from Pyapôn, and is hinted at in Sagaing, where it is reported that Chetties prefer moveables as security. Unfortunately for the Sagaing report, the number and value of instruments affecting moveables fell in Sagaing *pari passu* with instruments affecting real property. On the other hand, figures for moveables did rise in Bassein, Pyapôn, Thatôn and Kyauksè, and it is probable that the land alienation proposals have had a useful, small, and local influence in depreciating bad security, an influence almost entirely confined to those districts where the necessity for land alienation proposals arose.

Other minor local causes of variation given in the district reports are: *Rangoon*, famine, drought and plague in India which decreased the Rangoon money market, and increasing deposit of title deeds as security; *Pegu*, enforcement of the circular as to alienation of grants, and increase of fisheries; *Amherst*, a sale of bazaar shares; *Thayetmyo*, the transfer of two oil mills; and in several districts better understanding of the Transfer of Property Act and of Registration.

CHAP. III.—PROTECTION. Income and Expenditure.

88. The income from fees in the Province decreased by Rs. 19,138 to Rs. 1,69,453, a fall of 10 per cent. In Lower Burma the decrease was by Rs. 14,390, or 9 per cent., to Rs. 1,42,993, in Upper Burma by Rs. 4,648, or 15 per cent., to Rs. 26,460. Expenditure increased by 1·60 per cent., an increase which was due entirely to filling vacancies in the Lower Province.

Joint Stock Companies.

Number of Companies.

89. The number of Joint Stock Companies, limited by shares, increased by 19 to 104. Twenty-three new companies were registered, of which eight had a nominal capital of ten lakhs or over, being two banks (50 lakhs), a cotton mill (20 lakhs), rice mill (15 lakhs), Gold-dredging Company (50 lakhs), Mineral Prospecting Company (10 lakhs), two oil companies (50 lakhs), and a sugar refinery (10 lakhs). Four companies wound up their business, of which only one was an old established company fully paid-up, the other three being new companies registered in 1907-08, of which two had no paid up capital at all. There were six Associations limited by guarantee during the year, no new ones being formed.

Capital.

90. The aggregate nominal and paid-up capital of all companies for the two preceding years, and the year under report, was 337, 762, 1,073, and 138, 251, 303 lakhs of rupees. Registration fees paid were Rs. 5,383, Rs. 11,964 and Rs. 11,897. One company, oil, increased its nominal capital by 20 lakhs, twenty-three companies increased their paid-up capital, and three companies, one oil and two transport, increased both nominal and paid-up capital, the oil company's nominal capital rising by 45 lakhs. One company, the Golden Valley Estate Company, reduced both nominal and paid-up capital during the year.

General.

91. The returns for the last two years lead to a belief that the commercial and investing public connected with the Province have at last realised its opportunities for development under large capital, and have soberly moved in various directions, in which experience within the Province has shewn that capital may command success, with the result that a relatively enormous development of joint stock enterprise has ensued. The amount of nominal and paid-up capital is three times what it was two years ago. Though the oil-boom has led to extensive flotations, it is at present only responsible for a small fraction of the increase in industrial enterprise, for only 24 lakhs and 6 lakhs of the increases in paid-up capital, 113 lakhs and 52 lakhs, in the preceding year and the year under report were due to oil. Though the paid-up capital has only increased half as fast as in the preceding year, and though the large investments of these years have led to a decrease in investments in land, there is no sign in the reports that the Province has reached, much less exceeded, its limit at the moment for commercial development.

Local Boards Administration.

92. There are no Local Boards in Burma. The District Funds in Upper Burma and the District Cess Funds in Lower Burma are administered by the Deputy Commissioners of the districts to which they belong. Some account of their receipts and expenditure is given in paragraphs 209 and 210.

Municipal Administration.

(i) *Rangoon Municipality.*

General.

93. The Burma Municipal Act was amended to provide for dangerous fences, and further amendments are proposed, to enable the authorities to deal better with the erection and demolition of buildings. Much trouble is caused by builders, who will attempt to evade the rules laid down, and the orders of the Municipality on structural and sanitary points. Arrangements have been made to dispose of arrears in the Buildings Department, and prevent delays. Houses for Municipal employés, and a New Town Hall, are under consideration. A large number of rules and bye-laws were made, or amended, during the year.

94. *Balance.*—The year opened with a cash balance of Rs. 18,12,085. The revenue realized during the year was Rs. 38,46,994, and expenditure Rs. 41,97,699. There was a deficit of Rs. 3,50,704, reducing the closing balance to Rs. 14,61,381. Rupees 15,17,434 was spent on public works, the percentage of cost of establishment being 7·75. Finance.

Assessments.—The revision of assessments in progress increased the monthly rental value of public land (exclusive of Government, Railway, and Port Trust property) by over half a lakh of rupees to Rs. 9,54,705. The dog-tax was abandoned without being brought into operation.

Demand.—Demand, collection, and remission of rates, and taxes, rose from Rs. 25,87,614, Rs. 23,96,189, and Rs. 1,02,835, to Rs. 26,60,118, Rs. 25,31,639, and Rs. 1,08,573.

Debt and Sinking Fund.—Loans rose from Rs. 1,49,09,500 to Rs. 1,66,66,000, the rise being due to reclamation loans, which rose from Rs. 27,36,000 to Rs. 45,50,000, by the payment of Rs. 18,14,000, the balance of the loan of 1908. Sinking funds were Rs. 14,81,300, and loan charges Rs. 12,39,894, at the end of the year.

Income.—Excluding loan works and debt accounts, ordinary income rose from Rs. 33,85,887 to Rs. 35,14,047. Rates and taxes produced one and a half lakhs more than in the previous year, and other sources of income about a quarter of a lakh more. There was an increase of Rs. 30,000 in grants and contributions, and Rs. 40,000 was specially granted for plague expenditure.

Expenditure.—Excluding loan works and debt accounts, the ordinary expenditure sank from Rs. 36,14,389 to Rs. 32,04,432. The fall resulted from the cessation of the extraordinary expenditure of the previous year, due to retirement of establishment and advances to reclamation funds, from decrease in the cost of maintenance of water and drainage works, and from deferring work already sanctioned on roads. Electric lighting, and some minor items, rose.

Provident Fund.—Subscribers to the Provident Fund increased from 136 to 144, and the credit balance and investments increased from Rs. 4,712, and Rs. 1,18,000, to Rs. 4,855, and Rs. 1,46,500.

95. *Reclamation Fund.*—The Reclamation Fund began the year with an overdraft of Rs. 6,31,189, at the Bank of Bengal, but during the year the Bank credited Rs. 18,14,000, the balance of the 1908 loan of Rs. 27½ lakhs taken by it. Expenditure was Rs. 12,39,005, of which Rs. 8,61,209 was on works, Rs. 1,75,842 on loan charges, and Rs. 1,99,540 discount on the loan credited; 98·5 acres were reclaimed. The closing balance was Rs. 4,41,611. Public Works.

Roads.—The sum spent on repairs was Rs. 2,15,984. But the grants for renewal are too small, and the roads break up far too soon; Pallavaram stone and tar-painting have been tried. The yearly grant is inadequate to provide pavements. Rupees 40,000 was allotted by Government for back drainage spaces.

Electric Tramways.—The running mileage increased from 1,404,162 to 1,459,465, and receipts from Rs. 7,55,429 to Rs. 8,76,986.

96. *Water-supply.*—Receipts were Rs. 6,27,498, to expenditure Rs. 6,70,913, and the deficit in the special water fund rose to 27 lakhs. The three lakes Victoria, Hlawga and Royal, have been kept in order, and improved. In June 1909 the 42-inch main from Hlawga burst, and the town was supplied for 38 hours from Victoria. The pumping station at Yegu is approaching completion, and will relieve the Tamwe pumping station which can barely supply the Town. But the older mains will give trouble when the Yegu station begins work. Public Services.

Sanitation.—The receipts of the scavenging-tax fund were Rs. 7,68,035, against expenditure Rs. 7,96,259, and the deficit in the special scavenging fund rose to 31 lakhs of rupees. Four ejector stations, a gravitating sewer, and the drainage of two blocks were completed. No final decision has been reached regarding the disposal of sewage outside the sewered area, and its present disposal creates a nuisance at Ahlon.

Lighting.—Receipts were Rs. 1,10,365, against expenses Rs. 1,81,430. The special fund still shows a balance of Rs. 98,622, but the cost of electric lighting is very heavy, and must lead to a deficit, and if the system is extended, the rate must be reconsidered. In street lighting 922 incandescent and 353 arc lamps are now

CHAP. III.—PROTECTION.

employed. The lighting is unequal, as it is brilliant and wasteful in main streets, and inadequate in some outlying parts. Improvement is contemplated.

Fire Brigade.—There were 42 calls to fires, including four false alarms Equipments were overhauled, telephones improved, and a new engine obtained bringing the year's expenditure to Rs. 83,741. The value of property destroyed was Rs. 1,55,991.

Public Health.

97. *Health.*—The death rate, on an estimated population of 295,803, was 33·79 per mille, shewing a continuous fall since 1905; decrease was noteworthy in the fall of plague deaths. Infantile mortality rose to the figure of three in ten. Compulsory vaccination, becoming necessary as the immunity conferred by the epidemic of 1906 wears off, was attempted on immigrant coolies, but abandoned, and small-pox became epidemic in January 1910. In plague measures, Rs. 1,08,921 was spent in rat rewards, and during the year the reward was halved to one anna a rat, and public rat-catchers registered. There were only 170 inoculations. Milk shops are being licensed under the new bye-laws, and coolie barracks attached to mills and factories have been inspected, and will be dealt with after registration. Model coolie barracks are still under discussion.

Markets, etc.—Private markets have improved, and the new fruit market is a valuable acquisition to the town. The establishment of private markets, without license, was prohibited. Of the four public markets, Strand bazaar is to be improved, section by section, and a sum for the improvement of Kemmendine bazaar is sanctioned. The number of pigs slaughtered decreased, owing to swine-fever. A bill to regulate the slaughter of goats is under consideration. The prevalence of glanders has attracted attention.

(ii) *Other Municipalities.*

General.

98. The number of Municipalities, excluding Rangoon, was increased to 44 by the provision of a Municipality for Syriam. The boundaries of the Pyapôn and Toungoo Municipalities were revised. The number of Municipal Commissioners increased from 540 to 557, of whom 169 were *ex-officio* members, 322 were nominated and 66 elected; the number of Municipalities containing elected members was eight as in last year. Municipal elections took place in Prome, Henzada, and Yandoon; and bye-elections in Mandalay and Toungoo; but, except in Yandoon, some places had to be filled by nomination for want of candidates. The success which has attended large rat-drives, in Prome and elsewhere, is shown in paragraph 221. Resulting proposals to concentrate plague operations in corps, working over large areas, are under consideration. There was a marked decrease in plague mortality; but necessary municipal measures are still postponed to plague prevention, and the three lakhs sanitation grant has been most useful in relieving the financial stringency.

Finance.

99. *Balance.*—The opening and closing balances were Rs. 9,26,041 and Rs. 9,59,008. Gross income and expenditure fell from Rs. 40,25,821 and Rs. 39,21,714 to Rs. 38,53,549 and Rs. 37,85,119.

Assessments.—Average incidence of taxation rose from Rs. 2-0-8 to Rs. 2-1-7, and of income fell from Rs. 5-4-10 to Rs. 5-2-0. New taxes were imposed for lighting at Kyaiklat, Letpadan and Ma-ubin, for scavenging at Tavoy and Thônzè, on private latrines at Kyauksè, for water at Thônzè, and on lands not built on at Sandoway.

Demand.—Arrears have fallen at Mandalay, Pyinmana, Thayetmyo and Pyapôn. Large outstandings exist at Akyab owing to a cyclone; at Myaungmya, where a collector died during collection; and at Toungoo, where Railway and Military Police payments were delayed.

Debt and Sinking Fund.—The loans from Government during the year were Kyaiklat, Rs. 65,000; Toungoo, Rs. 10,000; and Allanmyo Rs. 10,000. The investments, at the end of the year, amounted to Rs. 2,74,900; the loans due to Government to Rs. 8,68,184; loans due to the Public (at Moulmein and Mandalay) to Rs. 18,19,000. Payments on account of interest fell by Rs. 1,147 to Rs. 1,23,979; payments to sinking fund rose to Rs. 36,884; the extraordinary and

debt account income fell from Rs. 3,54,481 to Rs. 2,47,539; deposits fell by Rs. 1,20,660, but loans and advances rose by Rs. 5,500 and Rs. 8,219. The expenditure on the same account fell from Rs. 2,81,086 to Rs. 2,69,780; deposits and repayments of loans decreasing by Rs. 30,685 and Rs. 2,324, while advances and payments to the sinking fund increased by Rs. 17,497 and Rs. 4,757.

Income.—Excluding Extraordinary and Debt accounts, net income fell from Rs. 36,71,340 to Rs. 35,87,198. Taking heads of decrease and increase in order, Grants and Contributions fell by Rs. 1,51,342, because grants for plague suppression fell from Rs. 1,91,750 to Rs. 52,500, of which Prome took Rs. 20,000, Mandalay Rs. 15,000 and seven other Municipalities divided the balance. Out of the three lakhs Imperial grant for Sanitation, Kyaiklat took Rs. 40,000, for conservancy; Akyab Rs. 32,690, for water-works and drainage; Thayetmyo Rs. 25,000, and Prome Rs. 15,000, for water-works; and Mandalay Rs. 20,000, for drainage of the Shwetachaung. Miscellaneous income decreased by Rs. 12,124, and realisations under Special Acts by Rs. 533. The increases were under Municipal rates and taxes Rs. 57,232, and Municipal rents and fees Rs. 22,625. These showed a general increase in keeping with the increase of prosperity, but it may be noted that Tavoy and Mergui rose Rs. 9,000 and Rs. 7,500 on account of revision of rates; Bassein rose Rs. 8,000 by a tax of Rs. 500 on each white rice cone in the mills; and Kyaiklat fell Rs. 8,768 in market and slaughter-house fees.

Expenditure.—Excluding Extraordinary and Debt charges, expenditure fell from Rs. 36,40,628 to Rs. 34,99,040. The decrease was under the heads of Public Health and Convenience Rs. 1,62,520, Public Instruction Rs. 6,385, and Miscellaneous, mainly interest, Rs. 1,188; partly counterbalanced by increases under Contributions, Rs. 12,514, Public Safety, Rs. 9,392, and Administration and Collection, Rs. 6,599. The decrease under Public Instruction was due to a reduction of the grant towards Teachers' salaries from one-half to three-eighths. On account of lack of funds the Local Government only took over two Municipal schools, at Prome and Mergui, during the year. The increase under Public Safety was due to the purchase of fire-engines by Prome, Kyaiklat and Pyinmana; that under Administration and Collection to an increase, owing to casualties, in Mandalay of Rs. 15,313 under pensions and gratuities, partly counterbalanced by decreases in Mergui and Tavoy owing to refunds of grants, and in Moulmein owing to reduction of the high figure last year. The large decrease of expenditure on Public Health and Convenience, when analysed, shows the pernicious influence of plague, when coupled with financial stringency, on public services. The only items which show an increase are plague charges, Rs. 1,37,046, and Public Works, Rs. 30,303; decreases occur in Hospitals and Dispensaries, Rs. 2,00,276; Water-supply, Rs. 92,569; Conservancy, Rs. 26,785 (on account of the saving due to the new tram-line system at Henzada); Markets and slaughter-houses Rs. 3,993, and Drainage Rs. 3,524.

Public Works.

100. *Roads.*—The gross expenditure on Public Works rose from Rs. 5,43,560 to Rs. 5,75,863 and was practically divided between establishment and roads, which rose from Rs. 3,99,874 to Rs. 4,29,772. Mandalay spent Rs. 99,979 on roads and drains; Bassein added eight miles to its made roads; expenditure in Akyab fell from Rs. 22,753 to Rs. 17,525; and the amount spent in Pegu was limited to Rs. 25,254 by the default of the stone contractor.

Public Services.

101. *Water-supply.*—The increase of capital expenditure from Rs. 11,625 to Rs. 41,546 is due to a refund of Rs. 28,000, the balance of a Government loan to Mônywa, where the means of supply remains undecided. The completion of the Akyab water-works reduced establishment charges from Rs. 1,93,520 to Rs. 71,031. A tank at Pyapôn has been fenced and equipped with pumps. The Bassein Committee has ignored the unfavourable result of the referendum mentioned last year, and has decided on the Kanthônzin water-supply scheme; Paungdè failed in three attempts to sink tube-wells; water schemes for Mandalay, Minbu, Thayetmyo, Toungoo and Yamèthin are in various stages of progress.

Sanitation.—Attention has been mainly directed to plague prevention by means of suitable building bye-laws, and control of lodging-houses. Drainage schemes made some progress at Mandalay, Bassein and Pyapôn; but were abandoned at Ma-ubin and Minbu on account of lack of funds.

CHAP. III.—PROTECTION. Public Health.

102. *Hospitals.*—A new Hospital with quarters for the Medical Officer was constructed at Allanmyo, and an operation theatre at Akyab. Proposals were made for extensive alterations to the Moulmein Hospital, and for a new one at Pyapôn. There were large increases in the numbers of patients dealt with at the Mandalay and Thatôn Hospitals.

Markets, etc.—Improvements to make bazaars rat-proof were carried out at many places, notably at Bassein, Mandalay, Myingyan and Pakôkku. Experiment at Bassein shewed that rats can enter a bazaar if the protective plinth is worn away, or boxes or bags are carelessly disposed. Municipalities are framing bye-laws to deal with these difficulties.

Military.

Strength of the Garrison.

103. The total strength of the troops forming the Burma Garrison at the end of March 1910 was 11,372 officers and men, of whom 4,726 were Europeans.

Military Works.

104. Expenditure on Military works fell from Rs. 7,64,792 to Rs. 6,27,013. Ordinary repairs cost Rs. 3,25,783; ordinary original works cost Rs. 1,18,016; and special original works cost Rs. 21,923. At Maymyo, further progress on the scheme for accommodation for a Battalion of British Infantry was delayed, pending the sanction of the Secretary of State to the Revised General Abstract Estimate, and only Rs. 18,731 was spent on the scheme during the year. Rupees 9,800 was spent on approach roads and godowns at Maymyo; quarters for the officer-in-charge, Bhamo, were nearly completed, at a cost of Rs. 21,646; and the extension of the pucca drains in Fort C was finished. At Shwebo, owing to an increase in the sanctioned percentage of married men, Rs. 13,325, out of Rs. 18,139, sanctioned, was spent on new temporary quarters. At Meiktila, planking the mat walls of the Indian Infantry barracks began; and the Zenana compounds of the married quarters were walled with brick-work and concrete. Corrugated iron was used for similar walls in Bhamo. At Mandalay Rs. 24,968, out of Rs. 34,295, sanctioned, was spent in raising the stop butts of the rifle ranges.

Military (Volunteering).

105. There were six Volunteer Corps in Burma during the year under report; the Headquarters of the Rangoon Port Defence Volunteers, the Rangoon Volunteer Rifle Corps and the Burma Railways Volunteer Corps were at Rangoon; of the Moulmein Volunteer Rifle and Artillery Corps, at Moulmein; and of the Upper Burma Volunteer Rifles, at Mandalay. During the year one new company, one new troop of Mounted Rifles and three new sections were added to the Rangoon Volunteer Rifle Corps. The total strength of the six Corps as shown by the rolls at the close of March 1910 was 3,090 adults, 449 cadets and 147 reservists, shewing an increase over the figures of the previous year of 295 men. The number of efficients, excluding reservists, also increased by 319 men to 3,381 men, whilst the amount of money earned by the Corps, taken together, in capitation and other grants increased from Rs. 1,17,969-8-0 in 1908-09 to Rs. 1,33,641-8-0 in the year under report. These figures do not include 46 members of the South Andaman Volunteer Rifle Corps, which, for administrative purposes, is attached to the Rangoon Volunteer Rifle Corps and earned Rs. 1,608 in grants during the year. Volunteer officers of and above the rank of Captain who are not on the Supernumerary List were exempted from liability to serve as jurors or assessors in Burma.

Marine.

Light-houses and Light-ships.

106. The scheme for the improvement of the light-houses off the Coast of Burma was proceeded with to the extent of the funds available. The light-house on Beacon Island, a cast-iron tower on a concrete base in a very exposed situation, was completed at a cost of Rs. 2,09,721; the light, which was first exhibited

on the 1st August 1909, has given satisfaction. The light has an intensity of 210,000 candle-power and a range of visibility of 17 miles. Incandescent lights were installed at Table Island, Green Island and Alguada Reef, the expenditure incurred being Rs. 56,822, Rs. 19,644 and Rs. 37,681, respectively. The installation increased the intensity of the light at Alguada Reef from 97,000 to 290,000 candle-power, and reduced the consumption of oil from 2,700 gallons to 600 gallons per annum. An interesting piece of work, carried out in the face of difficulties, was the closing, at a cost of Rs. 37,714, of the chasm at the Alguada Reef which threatened the safety of the light-house and had been a source of anxiety for many years. This chasm faced the open sea on the weather side of the reef, and was closed by a wall of cement concrete constructed in a coffer dam, which cost Rs. 28,906 in the year under report. To complete the general scheme of light-house improvement, estimates amounting to Rs. 29,595 and Rs. 33,338 have been sanctioned for Double Island and Savage Island light-houses. Work on them will be commenced next year, and after that the only two remaining light-houses to be dealt with will be China Bakir and Reef Island. The light at Victoria Point continues to give satisfaction. The patent 93 days unattended Wigham's light, at the west end of Zallataung Island, having proved unsatisfactory, its use has been discontinued for the present. The Royal Indian Marine steamers *Mayo* and *Dalhousie* were employed throughout the year in visiting the light-houses and light-ships, and carrying stores, provisions, reliefs, and workmen of the Public Works Department. The light-houses and light-ships were inspected by the Principal Port Officer, Burma, in the course of the year and found to be in a satisfactory condition. The light-ships *Martaban*, *Kemmendine* and *Kalagauk* were overhauled; and the *Danidaw* was in dock at the end of the year. The number of cases of beri-beri among the light-house and light-ship crews increased from 25 to 39. Six cases proved fatal against two in the previous year. The prevention of beri-beri in the light-houses and light-ships has the attention of the Sanitary Commissioner. The total expenditure on light-houses and light-ships during the year was Rs. 1,68,133, as compared with Rs. 1,41,903 in 1908-09. Repairs by the Public Works Department cost Rs. 22,597 against Rs. 15,949. There was also an increase from Rs. 1,05,721 to Rs. 1,26,911 on the cost of establishment, provisions, oil, stores, and contingencies, etc. The receipts from Burma Coast Light dues were Rs. 4,22,253 as compared with Rs. 3,73,652 in the previous year, the increase being due to the larger number of vessels visiting the various ports in the Province. The existing rate at which the due is levied is one anna and two pies per ton of burden; the advisability of reducing this rate is under discussion. The last reduction was effected in April 1906, when the rate was reduced from one anna and six pies to one anna and two pies.

Port Administration, Rangoon.

107. The income of the Rangoon Port Trust, including debt accounts, fell from Rs. 45,08,267 to Rs. 40,01,112; the expenditure, debt accounts also included, rose from Rs. 39,32,423 to Rs. 42,52,955. The closing balance on the 31st March was Rs. 6,90,370 against an opening balance of Rs. 9,41,913. The ordinary revenue, excluding debt accounts, increased from Rs. 28,86,166 to Rs. 29,31,263. There was a falling off in receipts on sea-borne trade compensated for by the continued expansion of the inland trade. Land rents also continued to expand. The ordinary expenditure rose from Rs. 29,29,033 to Rs. 33,45,343. Rupees 12,78,688, or 38 per cent. of the total expenditure, went to meet charges on account of interest on, and the sinking funds for, the various loans raised since 1903, and the other main causes which contributed to the growth of expenditure during the year under report, were the expansion of the Traffic Department establishments; the carrying out of certain contingent works connected with the same Department; and the placing of Harbour Masters on fixed graded pay with effect from the 1st April 1909. The Port Commissioners raised a loan of 32 lakhs, for the purchase of certain foreshore properties, and for river training purposes. Conditions in the Indian money market were adverse at the beginning of the year, but became favourable in March 1910, when the loan was placed at a price of 93 per cent. The total indebtedness of the Port Commissioners rose from Rs. 2,07,12,000 to Rs. 2,39,12,000. The total capital expenditure of the Port

CHAP. III.—PROTECTION.

during the year was Rs. 82,06,110, of which Rs. 41,33,261 was spent on works, and the balance, Rs. 40,72,849, on reducing a bill for £200,000 raised while conditions for a public loan were unfavourable. Rupees 11,51,572 was spent during the year on the wharves' scheme bringing the amount spent to Rs. 1,03,53,565 against a sanctioned estimate of Rs. 1,04,35,866 and the project was completed by the end of the year, with the exception of berth No. 1 at Sule Pagoda Wharf, where reconstruction was rendered necessary by the collapse of the retaining wall. The other items of capital expenditure during the year were: river-training works, Rs. 15,98,106; land acquisition and equipment, Rs. 11,27,407; dredging of the Hastings shoal, Rs. 1,47,647; warehouse and godown construction, Rs. 79,373, and the fixed mooring scheme, Rs. 29,156. The scheme for a Railway bridge over the Pazundaung creek was referred to a committee to determine the type of bridge necessary. The three chief features of the year—the River Training Works, the Railway Conference, and the Foreshore Committee—deserve special mention.

River Training Works.—The Hlaing river, in the bend of which Rangoon stands, is eating back the corner where the Kanaungto stream enters it, silting up Rangoon on the inside of the curve, and threatens to leave the present port high and dry. To prevent this, a curved granite rubble wall, two miles long, on brushwood mattresses, is to be run in the corner, and the old silting channel dredged. The granite is to be brought from quarries in Kalagauk Island, 135 miles away on the Tenasserim coast, in steam hoppers. The revised estimate was sanctioned after the close of the year, but the sum to be spent is something less than the estimate of 134 lakhs, for it has been decided not to cut away Mower's Point. Of this, 32 lakhs has been already raised by a loan; Imperial and Provincial revenues will make equal grants, amounting to 50 lakhs, and a balance of Rs. 41,58,000 remains to be provided. The equipment of the granite quarries and of the steam hoppers was completed during the year; the first cargo of granite was delivered in February 1910; mattress and stone work has begun; and a preliminary dredging cut has been carried through. Expenditure to date has been Rs. 52,36,542, of which Rs. 25,08,062 is the cost of equipment of the quarries at Kalagauk, and the steam hoppers; Rs. 12,90,464 is the cost of works in Rangoon; and Rs. 12,19,936 is the cost of the dredger and tug.

The Railway Conference.—Negotiations for improvement of the through traffic on the Railway with the Port, which have been in progress for a very long time, culminated in a Conference in the year under report between the Port and Railway executives, which led to a preliminary agreement, the details of which are still under consideration, for a river-side Railway Depôt on the newly acquired land at Botataung; for a foreshore Port Railway; for additional sidings at the Lanmadaw inland import station, and at Sule Pagoda Wharf; and for Railway access to the Pazundaung creek; and the construction of the river-side Railway Depôt at Botataung commenced.

Foreshore Committee.—Roughly, 85 per cent. of imports and 10 per cent. of exports pass over the Port Trust Wharves and Foreshore. The Port Trust have been accustomed to look upon shipping, landing and wharfage charges on this trade as their main source of income, though since 1904 *river dues* have also been levied. The bulk of the trade, 15 per cent. imports and 90 per cent. exports, is almost wholly in rice and timber, is with vessels which deal direct with mills on the foreshore and pay no revenue to the Port. But there is an increasing proportion of diverse import and export trade, through middlemen, passing over private and Municipal foreshores, and through mills. In order to keep this trade under contribution, and to check the erection of private foreshore godowns, which had commenced, the Port Trust in 1908 obtained a notification under the Rangoon Port Act, 1905, confining this trade to their wharves and foreshore, and specially exempting the raw material, machinery, stores, and produce of mills. Owners of foreshore objected, and the questions involved were thoroughly sifted by a Commission, which found that the restrictions, though legal, were unique; that they hampered trade, and necessitated inconvenient Railway arrangements; that they seriously affected secondary business in mills, and trade on the foreshore; and that the principle which had led to the restrictions was objectionable, inasmuch as the charges were a tax on private owners and users

of the foreshore, which left the mills on the foreshore, and 90 per cent. of exports free from contribution to the maintenance of the Port. The Commission recommended that private owners should be allowed to use their foreshores freely, provided they did not act as wharfingers; and provided there was no interference with the foreshore below high-water mark (which would be an encroachment on property vested in the Port Trust) by the construction of a wharf or otherwise, except on conditions arranged with the Trust. The Commission recommended that landing, shipping and wharfage charges should cease to be the source of income, and should be reduced to payment for services rendered; and that, in future, river dues on inland vessels and port dues on sea vessels, should form the source of income; a measure which would bring all trade using the Port under contribution. These recommendations were accepted, and in preparing the budget, which shows a deficiency of Rs. 4,90,706 owing to interest and sinking fund charges, amounting to Rs. 10,96,412, opportunity was taken to review the financial position of the Port Trust in view of these recommendations, and a scheme was drawn up to cover future deficit for the next five years, and necessary capital outlay (Training scheme, Rs. 41,58,000; Salt godowns, Rs. 10,00,000; Completion of fixed moorings, Rs. 8,50,000; Equipment of the Botataung Estate, Rs. 8,00,000; a new warehouse, Rs. 10,00,000; total, Rs. 78,08,000) by loans amounting to 76 lakhs spread over five years, and by the increase under legislative authority of the River and Port dues.

Pilot Service, Rangoon.

108. The gross pilotage receipts rose from Rs. 2,53,287 to Rs. 2,86,290. A further sum of Rs. 21,000 was allotted to the Depreciation Fund, bringing it to Rs. 72,774. Rupees 1,83,296 was disbursed to the pilots, against Rs. 1,73,201 last year; the balance in hand of the Pilot Fund at the close of the year was Rs. 74,495. The Burma Pilots Act gives Pilots a privileged position which has been abused in one or two cases in the year under report. The proposal of the Port Commissioners to remedy this by assuming full control of Pilots was not thought necessary so far as taking them out of the scope of the Burma Pilots Act was concerned, as it was considered that the events referred to would not recur, and the delegation of some powers would suffice. It was decided to defer any change to fixed salaries, and adhere to the existing form of remuneration, but to examine Pilots' earnings every five years, in order to see whether a reduction of pilotage charges or a revision of the percentage paid to the Pilot Fund is desirable. From the 1st of April 1909 Harbour Masters receive fixed salaries and the Port Commissioners are considering the advisability of reducing the sanctioned strength from 13 to 11 for some years to come.

Minor Ports.

109. The receipts of the six minor ports, for which separate Port Funds are maintained, rose from Rs. 5,36,953 to Rs. 6,82,558. These figures, however, included additional loans of Rs. 50,000, Rs. 1,00,000, and Rs. 5,000, taken from Government by the Bassein, Moulmein and Tavoy Port Funds. Excluding loans taken, the net revenue rose from Rs. 4,29,953 to Rs. 5,27,858. Total expenditure increased by Rs. 3,00,360 to Rs. 7,37,296; the closing balance declined from Rs. 3,43,360 to Rs. 2,88,623. The receipts of the Pilot Funds at Akyab, Bassein and Moulmein exceeded the expenditure by Rs. 6,353; the closing balance fell from Rs. 33,430 to Rs. 29,112. Port Officers appointed by Government, and assisted by Advisory Boards, continued to manage the Ports of Akyab, Moulmein and Bassein. The administration of the Ports of Tavoy, Mergui and Kyaukpyu, which have no Pilot Fund, is in the hands of the Deputy Commissioner.

Commercial Marine.

110. The number of steam vessels which entered Ports in Burma from foreign countries rose from 371 to 437, and the aggregate tonnage from 808,592 to 1,006,453. Sailing ships numbered 55 against 58, but their total tonnage rose from 11,306 to 12,563 tons. Three hundred and two steamers, with an aggregate tonnage of 765,833, entered Rangoon from foreign countries, the corresponding figures for 1908-09 being 255 and 618,791. Although the number of sailing ships, namely three, which entered Rangoon Harbour

CHAP. III.—PROTECTION.

remained the same as in the previous year there was a slight rise in their tonnage. The number of steamers and sailing ships, engaged in the coasting trade, which entered Ports in the Province rose from 3,640 to 3,843; but the total tonnage fell from 2,697,496 to 2,584,880. One thousand one hundred and nineteen vessels, or about one-half the steamers, were bound for Rangoon, while only 171 sailing ships had a like destination. Of the coasting tonnage, Rangoon accounted for 1·81 million tons. The number of steamers of above 5,000 gross registered tonnage, which visited the port of Rangoon, rose from 198 to 201; and the gross tonnage of the *Cleveland*, owned by the Hamburg-American line, which brought a party of American tourists to the East, is 16,960 tons. Three hundred and twenty-six, or 66 per cent. of the 492 steamers, and sailing ships, entering Ports from foreign countries during the year were of British nationality, against 63 per cent. last year. Of vessels sailing under foreign flags, the number of German vessels again increased from 56 to 61; there was a further fall in the number of Norwegian vessels from 19 to 4; and Austrian and Dutch vessels numbered 19 and 15, respectively, against nine each in the previous year.

Commercial Marine—Wrecks and Casualties.

111. The number of accidents in Rangoon Harbour rose from 22 to 34, an unduly large figure. Thirteen happened to vessels in charge of Pilots; 18 to vessels in charge of Harbour Masters; and two to vessels at moorings; and one accident to a launch due to recklessness on the part of a serang resulted in the foundering of the Port Commissioners' launch *Stella* and the loss of two lives. Most of the accidents were trivial and called for no special action. In connection with the more serious accidents, one Harbour Master was censured, two Pilots reduced for six months each, and one permanently reduced, while one Pilot was severely reprimanded and warned to be more careful in future. Courts of Enquiry were held at Moulmein in connection with the grounding of two vessels whilst in pilotage charge. In one case the Pilot concerned was reprimanded, and in the other, acquitted. The steamer *Acara* was stranded on Diamond Island on the night of the 13th March 1910. Two Courts of Enquiry were held in this case: one under the Indian Merchant Shipping Act, 1883, and the other under the Burma Pilots Act, 1883. The Pilot responsible for the stranding of the steamer was found guilty of misconduct, in the discharge of his duty as a Pilot, and his license was suspended for six months.

Government Steamers and Launches.

112. The two Royal Indian Marine vessels, *Sladen* and *Bhamo*, carried by river over eleven thousand troops and followers, with ammunition, horses, and cattle, besides 11,465½ tons of stores, and 66¾ lakhs of specie. Their earnings rose from Rs. 2,18,018 to Rs. 2,33,151. Six new steam launches, one motor launch, one buoy vessel and two house-boats were added to the Government Flotilla, while four launches were sold, leaving at the end of the year 113 vessels of all descriptions, including 58 steam launches, 14 paddle steamers, eight stern wheel steamers, one motor launch, two buoy vessels, 11 house-boats, 11 flats, three barges, three steam-cutters, one pony boat, and one rock-smasher. The total amount earned by the Local Government vessels in Upper and Lower Burma was Rs. 4,80,466, or Rs. 18,448 less than in the previous year, the decrease being mainly due to the employment of several of the Upper Burma vessels on other than transport duties. The total expenditure on the upkeep of these vessels, including 4 per cent. interest on the balance of their cost, was Rs. 7,17,907, against Rs. 7,25,537 in 1908-09. Twenty-eight launches earned more than the cost of their upkeep. The construction of a stern-wheeler and a steam launch has been sanctioned. During the previous year the contract system for the supply of wood fuel in Upper Burma having been found unsatisfactory, arrangements were made for supply by the Forest Department. These arrangements are now practically complete, and the Forest Department has taken over charge of 13 wood depôts, eight of which were established during the year under report.

Marine Works and Surveys.

113. Good progress was made with a reinforced concrete landing stage at Kyauktan. Improvements to the landing stage at Myaungmya were completed, and a commencement made with the wharf at Thayetkôn Screwpile

landing stages at Syriam and Kadapana were completed at a cost of Rs. 37,451 and Rs. 17,697, respectively. Another landing stage was constructed at Maungdaw in the Akyab District. At Bassein, from Port Funds, flat pontoons were provided; certain bazaar jetties rebuilt; and Wharf No. 5 was extended. A deep pontoon and hinged jetty were provided for the iron screw-pile jetty at Akyab, and the bazaar pier was reconstructed. The protection of the Akyab foreshore, at an estimated cost of Rs. 12,357, was commenced. A new survey of the Rangoon Harbour, between Mower's Point and Danidaw, was completed; the charts were in the printers' hands at the close of the year. The banks of the river on both sides, from the Bassein Creek to North D'Silva Point, were redrawn, and the usual periodical examinations of the channels carried out. Several minor changes were detected, but none of importance, except on the Hastings bar, where deterioration appears to be in steady progress; but this deterioration is of no great consequence, as the dredger *Pelican* is employed when required in deepening the channel. A number of improvements to the river lights and marks were carried out during the year. The Royal Indian Marine Steamer *Investigator* continued the survey of the Burma Coast to the eastward of Cape Negrais.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

REFERENCES—

Season and Crop Report of Burma for the year ending the 30th June 1910.

Report of the Civil Veterinary Department, Burma, for the year 1909-10.

Land Revenue Administration Report of Burma for the year ended the 30th June 1910.

Report on the working of the Co-operative Credit Societies Act in Burma for the year ending the 30th June 1910.

Report of the Public Works Department, Burma (Irrigation), for the year 1909-10.

Report on the Operations of the Department of Agriculture, Burma, for the year ending the 30th June 1910.

Report of the Agri-Horticultural Society of Burma for the year 1909.

Report on the Forest Administration of Burma for the year ending the 30th June 1910.

Report on the Census of Burma, 1901.

Resolution on the Reports on the working of the Indian Factories Act in Lower Burma for the year 1909.

Report on the Maritime Trade and Customs Administration of Burma for the year 1909-10.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the year 1909-10, Part I, Foreign Trade, and Part II, Coasting Trade.

Note on the Transfrontier Trade of Burma during the year 1909-10.

Report of the Commissioners for the Port of Rangoon for the year 1909-10.

Report of the Public Works Department, Burma (Buildings and Roads Branch), for the year 1909-10.

Agricultural Statistics of India, Volume I.

Area and yield of certain principal crops in India.

Statistics of British India, Parts I, II and III.

Review of the Trade of India.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volumes I and II.

Annual Statement of the Coasting Trade and Navigation of British India.

Agriculture.

The Agricultural Department.

114. Owing to financial pressure the superior staff was reduced to a Director, Deputy Director and Agricultural Chemist. As the Deputy Director has charge of the experimental station in Mandalay, and of the training of students, and since enquiries of all sorts have increased largely it has been necessary to abandon agricultural surveys.

In research work, the principal items undertaken during the year have been the comparative study of wheat, paddy, cotton, *jowar*, gram and peas and beans, by the Deputy Director; reports on the sugarcanes and sugarcane soils of Burma; enquiries as to *taungya* soils, and as to canal and river silts; research as to the best soil for paddy and a study of its varieties; entomological study of cotton pests and of the rhinoceros beetle; and botanical survey of paddies, wheats, and cottons, peas and beans.

Agricultural surveys of the Myingyan and the Sagaing Districts were completed.

The Agricultural Chemist completed 257 analyses and 353 silt and water determinations as against 110 analyses last year.

Agricultural Stations.

115. The only working station in the Province, that at Mandalay, had a successful year. The area under permanent cultivation has been raised to upwards of 330 acres, and there only remains a small area under jungle. The Scientific Department, which is located at this station, commenced a few experiments during the year on the experimental area; sales of produce increased to Rs. 5,323 from Rs. 2,615 last year; and expenses fell from Rs. 26,870 to Rs. 15,227. The Superintendent and staff are beginning to understand the various undertakings, and less supervision is required. The cost of labour is considerable, owing to

the lack of quarters for coolies, and to the fact that the labour for the Agricultural Chemist, Assistant Botanist, and Entomological Assistant is drawn from the farm. More cattle are required, but the farm buildings are now occupied, and farm roads and minor drainage were undertaken. Two metalled roads, a bridge and a few details of construction and equipment are still incomplete. Budget provision was made for the Hmawbi Agricultural Station, but the land has been let to cultivators and the work deferred until the end of the rains. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

116. The '*Moisture resisting*' *paddy*, introduced into Arakan at the request of European millers to replace the *Necranzie* variety, has given an outturn of 73,000 baskets, and is reported to be of good quality. But its cultivation has only increased slightly, and as the price buyers give for it is less than the price of *Necranzie*, its future is doubtful as yet. Experimental cultivation through District Agencies.

Wheat grown in the Chin Hills, rose from 200,000 pounds to 300,000 pounds, and nearly sufficient was obtained for the Military Police. Experiments have commenced in the Kachin Hills, and may be similarly useful there. Otherwise wheat makes little progress, as it seems to deteriorate with change of climate.

Groundnuts contracted from 248,497 acres to 140,698 acres, owing to the early rains which led to planting with sessamum. Possibly a rotation of crops may be established.

Cotton. In four districts private growers are trying American Sea Island seed, and the Department is experimenting to find a variety suited to the Province.

Havana ana Virginia Tobacco were only reported successful in four districts. But, in view of the commercial successes in Ma-ubin and Bhamo, it is possible that these tobaccos might be successful all along the Irrawaddy, and the Department attributes the failures to lack of interest.

Arabian Coffee showed a slight success at Prome this year, but its prospects are slight.

Malta Lemons were very successful in the gardens of the Rangoon Horticultural Society, and may be regarded as established in the neighbouring districts.

Tapioca and Jute have been given partial trials.

English vegetable seeds did well generally. The demand for *Tadaungbo* has fallen off, and experiments continued in the other varieties of *paddy*.

117. *Taungya* cultivation is ruinous to forests, and dangerous to the headwaters of streams, and some alternative method is emphatically desirable. The experiment of manuring, and rotation of crops on permanent fields, suggested last year for the Kachin Hills of Bhamo, is in progress there. During the year, examination has been made of the red clay *taungya* soils of the Shan Plateau, and they are to be experimented on on a basis of lime manuring, and terracing for more permanent fields. At Toungoo it has been suggested that the growth of silk should be introduced, in place of *taungya*. But men and money are wanted, both to conduct systematic experiments as to the best alternative, and to instruct the wandering *taungya* clearers in the methods adopted. *Taungya* (Hill) cultivation.

118. Seven leaflets for cultivators have been issued during the year, besides the report of the Agricultural Survey of the Myingyan District. Enquiries dealt with have included: the effect of the manufacture of jaggery from toddy on the timber supply of the dry zone; the manufacture of *ghee* from cocoanut oil; and the extraction of fibre from plantain trees. The question of school gardens is under consideration. Publications and enquiries.

119. There were nine Inspectors, and 108 Assistants in the Subordinate Veterinary Staff, at the close of the year. Four Assistants were sent to Bhamo in the open season, to watch the caravan routes from China for diseased cattle, and the results were so promising that the Superintendent hopes to arrange for all frontier routes to be watched. The Veterinary School at Insein was improved by the acquisition of nine acres of land, the opening of a Hospital, the erection of some temporary buildings, and the provision of laboratory fittings. Five pupils passed, of whom four were appointed to the Department. Three pupils have finished their course at the Bengal Veterinary College, and are about to be appointed to the Department. A scheme for opening a Veterinary School at Taunggyi, under an Inspector, to train a staff of 12 Shans for the Shan States The Veterinary Department.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

has been sanctioned. An experiment, in the Möng Mit State in the Ruby Mines District, is being considered, whereby it is hoped that a race of cattle immune to rinderpest may be formed, by inoculation and breeding. The year was an unhealthy one for the staff, especially those employed on serum inoculation.

Agricultural stock and cattle disease.

120. There was an increase of over 123,000 bulls and oxen, or nearly 7 per cent. The only cattle which declined in numbers were buffaloes, which decreased by 13,077 bulls, 905 females and 6,392 calves. The figures do not show any connection between the decrease in buffaloes and disease, and probably the explanation is sufficient, that buffaloes are being replaced by oxen in parts of the Delta, and elsewhere in Lower Burma, and in Shwebo.

The previous year was one of exceptionally small mortality. Deaths from contagious diseases rose from 19,519 to 30,566; rinderpest 13,729 to 22,240; foot-and-mouth disease 2,800 to 5,207; and the diseases reported as anthrax 2,990 to 3,119. But serious outbreaks of disease were few, and only two of rinderpest in the Myitkyina and Thayetmyo Districts gave any trouble. The general increase in deaths is due to a levelling of the district figures, and the year is reported a good one, unusually free from epizootic disease.

Under rinderpest the outbreak at Myitkyina (4,358), was due to infection from pigs from over the Chinese border; an outbreak in Amherst was due to a caravan from Siam. In the Southern Shan States, where there is no registration, but where 16,000 deaths are estimated, outbreaks were due to passing caravans, whose cattle it was difficult to control. In the Northern Shan States, where there is no veterinary staff at all, outbreaks were local, spreading in a small circle, and dying down spontaneously. *Foot-and-mouth disease* was prevalent all over the country, generally in a benign form. In *anthrax* there was a more general diffusion, but outbreaks were few and of minor importance. Serum injection was carried out in seven districts on 3,466 cattle, of which only 226 died. There were 35 deaths from contagious diseases (surra 31, anthrax 2, glanders 2) among the 1,928 horses of the Military Police.

Among the Burmese of various localities, there is still apathy towards reporting, segregation, and serum inoculation; but natives of India propagate cattle disease in this country by active obstruction, and disobedience, of which three notable cases occurred in the year under report.

Pony and cattle breeding and shows.

121. The last Government Stallion, the Shan 'Emperor' at Thamakan, was in October. He served five mares, and one foal was dropped. A proposal for the improvement of the indigenous Shan pony was sanctioned, and awaits funds and suitable stallions. There are no Government bulls at stud in Burma. The Agricultural Show at Bhamo was repeated, and was more successful. Exhibits, of which only buffaloes and bulls were noteworthy, doubled and showed a great improvement in quality. The Agricultural Department continued its grant of Rs. 300 to the Mandalay Horse Show, where Burma Exhibits were of good quality.

Protection from inundations.

122. The Irrigation Department, whose work in other respects is reviewed in paragraphs 181 to 186 of this report, has undertaken protection by embankments from inundation on a large scale in the Irrawaddy Delta, and on a much smaller scale along the Sittang river in the Pegu District. The principle of the Irrawaddy Embankments is roughly that the west side of the river shall be chained, and the east side go free; they consist of a network running down the Henzada District west of the river; of one only the Sangin-Sagagyi to the east; and of two round the islands of Thôngwa and Ma-ubin. There are three, the Sittang, Zwebat-Moyingyi, and Pegu Embankments along the Sittang. The Ma-ubin island, and Pegu Embankments have revenue accounts only. The rest, the Irrawaddy Embankments proper, have capital accounts and are grouped into the Thôngwa island, and Irrawaddy Embankments; which latter are subdivided into an eastern series (the Sangin-Sagagyi), and a western series comprising the Kyangin, Myanaung, and Henzada sections. Embankment receipts consist of the land revenue collected within the protected area, and of some minor items.

The capital outlay on embankments which possess capital accounts rose to Rs. 39,34,589 by the expenditure of Rs. 38,130 on raising and strengthening the Henzada section, to withstand an inundation equal to that in the year 1877; the

Ngawun bund was completed at a cost of Rs. 16,080, giving a total of Rs. 2,53,523 against an estimate of Rs. 2,52,127, and Rs. 1,332 was spent out of a sanction of Rs. 10,663, in special repairs in bringing the crest of the completed bund to standard level throughout; the Henzada bund was completed at a cost of Rs. 13,850, giving a total of Rs. 1,41,818 against an estimate of Rs. 1,67,428, and similar work began on raising the crest, which completion levels showed was from one to six inches below standard level in places; work began on the Myanaung bund, where Rs. 10,059 was spent out of an estimate of Rs. 34,805. The area protected by capital embankments fell from 456,366 to 452,658 acres, and receipts from Rs. 13,32,249 to Rs. 13,19,588; but working expenses also fell from Rs. 2,93,914 to Rs. 2,41,226, and net revenue therefore rose from Rs. 10,38,335 to Rs. 10,78,362, giving a percentage of 27·41 on capital outlay against 26·65 last year.

The area protected by the embankments for which no capital accounts have been opened in the Ma-ubin island, and the Pegu District, rose from 174,825 to 193,013 acres, but the revenue fell from Rs. 5,52,813 to Rs. 4,80,504; working expenses fell from Rs. 94,013 to Rs. 89,319, and net revenue from Rs. 4,58,800 to Rs. 3,91,185. The total revenue received by the Department from these embankments from the beginning has been Rs. 74,25,049; and the total expenditure, including indirect charges, has been Rs. 32,96,903; the balance of net profit to the end of the year is Rs. 41,28,146. The Pagaing bund was badly breached by the Sittang river, and the resulting inundation did damage to thousands of acres of crops in the Pegu and Thatôn Districts; one-fifth of the necessary repairs had been effected, at a cost of Rs. 10,861, including ordinary maintenance, at the end of the year. On the Sittang Embankment four laterite spurs were finished at a cost of Rs. 16,816; Rs. 3,028 of an estimate of Rs. 23,582 was spent on a retirement and diversion cut; and Rs. 3,292 of an estimate of Rs. 14,397 was spent on raising the embankment.

Minor protective works in progress were a retirement to protect the town of Zalun, which was completed at a cost of Rs. 9,710 against an estimate of Rs. 9,610, but on which repairs are in progress; a retirement at Lamaing, which is completed, but on which Rs. 7,058 mainly in land acquisition payments was spent during the year, bringing the cost to Rs. 37,380, against an estimate of Rs. 41,691; a retirement to protect the town of Henzada which was completed at a cost of Rs. 12,245, against an estimate of Rs. 12,407; and the closing of the Henzada channel of the Irrawaddy, on which Rs. 20,675 out of an estimate of Rs. 37,648 was spent during the year.

Agricultural loans.

123. The amount of agricultural loans outstanding at the beginning of the year fell from Rs. 10,01,312 to Rs. 9,07,677. The amount advanced declined from Rs. 10,32,620 (the record) to Rs. 7,90,102 (the least since 1905-06). The reduction of loans is due to the general prosperity, and would have been much more but for efforts made in the Irrawaddy Division to popularise agricultural advances, as a remedy for indebtedness, after a conference by the five District Officers on the subject; in consequence of which advances nearly doubled in Pyapôn, Ma-ubin and Henzada and trebled in Bassein. Advances in Tharrawaddy rose from Rs. 63,135 to Rs. 88,995 to relieve distress caused by flood and cattle disease. Advances in Upper Burma declined with prosperity from 8 to 4·85 lakhs; in the Myingyan District alone from Rs. 1,48,285 to Rs. 10,130. Collections suspended fell from Rs. 1,67,870 to Rs. 1,03,362; Tharrawaddy, Meiktila and Yamèthin Districts showed the only large amounts. The amount of principal and interest over-due fell from Rs. 1,23,414 to Rs. 99,617. Interest collected, in the year under report, and the two previous years, was Rs. 69,087, Rs. 83,367 and Rs. 68,572. The amount of interest suspended, and over-due, at the end of the year fell from Rs. 3,596 and Rs. 8,675 to Rs. 357 and Rs. 6,153. The Land Improvement Loans Act was used sparingly in nine districts, advances under it and the amount over-due at the end of the year, fell from Rs. 13,675 and Rs. 3,315 to Rs. 12,110 and Rs. 1,234; Rs. 384 was suspended, against nothing last year. The profit to the Local Government was Rs. 40,269; and has amounted to Rs. 1,93,371 in the last six years; but the present state of Provincial finances

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

gives no encouragement to the proposal of schemes of public utility, on which it is intended that these profits shall be expended. Deputy Commissioners were empowered to disburse a proportion of their provisional allotment for agricultural advances without waiting for sanction to their budgets, a valuable concession, which makes it possible to make these advances as soon as they are promised, without waiting, until the end of the agricultural year for budget sanction.

Co-operative Societies.

124. The number of Co-operative Societies in existence on the 30th June 1910 was 283 against 173 and 81 in the two previous years ; members increased from 5,356 to 7,591 ; the working capital from Rs. 4,96,802 to Rs. 7,61,002 ; and the reserve fund from Rs. 30,931 to Rs. 70,644, an increase from 9 to 14 per cent. in the amount borrowed from non-members.

The 283 Societies consist of one Central Bank at Pakôkku, lending to 27 affiliated Societies ; 22 urban Societies, or four more than last year, of which six are unlimited of *Luzzatti* type ; and 252 rural Societies against 154 last year, comprising five of *Schulze* type, 184 *Raiffeisen* and 63 *Luzzatti*.

Working capital increased for the Pakôkku Bank, from Rs. 13,960 to Rs. 23,242 ; for the urban Societies, from Rs. 76,837 to Rs. 1,51,960 ; and for rural Societies, from Rs. 4,06,005, to Rs. 5,85,800 ; and, as last year, averaged Rs. 95 per member. State aid and agricultural advances decreased from Rs. 24,380 to Rs. 18,829, of which Rs. 9,980 is the remainder of sums lent to Societies against equivalent share capital under the Resolution of 1904, and Rs. 8,849 consists of agricultural advances, under special conditions, in the Mandalay Canal Tract

One Society was wound up during the year, and four were in liquidation at its close. Progress has been such that it is desirable to eliminate the weaker Societies, and thereby to discriminate, and develop confidence in the stronger. The Pakôkku Central Bank lent at 15 per cent. at the beginning of the year to its affiliated Societies, which charge 21 per cent., whereas rural Societies elsewhere borrowed at 9 per cent. and lent at 15. This unsatisfactory feature, and want of control of its affiliated Societies, have been remedied by a reconstruction whereby its rate for advances is fixed at 9 per cent. Urban Societies showed a large increase in numbers and capital in Toungoo, Ma-ubin, and Daunggyi. They are responsible for such litigation as exists, and some Societies, mainly of clerks and police, showed unsatisfactory features which may lead to the extinction of the Societies concerned. Rural Societies show large increases in members and capital in Shwebo (where Societies increased from 28 to 91), Mandalay, Yamèthin and Toungoo ; and smaller increases in Pakôkku, Kyauksè and Myaungmya. *Unions* of Societies were introduced during the year, and at its close there were five in Shwebo, and three in Mandalay, containing 92 Societies. These unions are not banks, but confine their functions to inspection, control, and guarantee, paying expenses of inspection, and staff, by a rate of from 4 to 8 annas per cent. on the working capital of their members. Good Societies readily entered unions, which have done useful work already by strengthening the position of their members, and rejecting feeble applicants for affiliation. A creditor's bank is being tested in the Mandalay Canal area, where a few large creditors have agreed to convert their claims against cultivators into fixed deposits. Societies so far are confined to Upper Burma, and a few places in Lower Burma, but slow growth is necessary to determine the lines suited to the Province, and the co-operative idea is being widely disseminated and discussed.

The features of the year were :—(1) The desire and ability to save, shewn by the increasing popularity of the *Luzzatti* type of Society, to which other Societies are changing. (2) The increase of Burmese capital by over three lakhs. (3) The tendency to use local capital, instanced by the Ma-ubin urban Society, which replaced Rangoon money by local borrowings ; and by the Toungoo Town Bank, which completely financed itself in Toungoo and Pyinmana. (4) The urgent need of Town Banks as a means of local *investment*, either private or under Government control, instanced by the request of the Pyinmana capitalists, that they might be the sole financiers of local Societies ; and by the application of Sagu capitalists, that a Central Bank might be opened there to provide a means of investment other than land. (5) The moral improvement effected in districts where

Societies are rapidly spreading, in which they constitute a check on gambling and outside borrowing, as money-lenders boycott members. (6) The absence of the suspected tendency to land-grabbing, instanced by cases where capitalists actually finance Societies which buy back land from them; and (7) The business tone, fair play, and lack of favouritism shown in the conduct of the Societies.

Weather and Crops.

Character of the Seasons.

125. The seasons, like those of the preceding year, were exceedingly favourable, especially to the central districts of the dry zone, and the year was a very prosperous one. The rains were excellent in the Delta division; but held up in passing over the districts bordering on the dry zone, causing some deficiency in Henzada, Prome, Tharrawaddy and Toungoo. After entering the dry zone, the rain fell heavily, but became capricious or deficient in the districts bordering the surrounding belt of hills, discharging heavily as they passed away over these. The rise in the rivers was unusual, the Irrawaddy in the west giving an exceptionally good level of inundation in the alluvial plains in the dry zone divisions, but doing some damage in Tharrawaddy and Ma-ubin further south; on the East, the inundations were too great, and Kyauksè, Toungoo, Pegu, Thatôn and Amherst suffered much damage from floods which also destroyed much cultivation, in the parts of the Shan plateau which drain through these districts. In particular, the breaking of the Pagaing Embankment in Pegu led to an inundation of the Sittang river, which destroyed or damaged the crops on 123,000 acres in Pegu, and Thatôn; and the inundations in Amherst followed by insect pests and rats were detrimental to some 50,000 acres of paddy. In November an unusually heavy rainstorm swept over the Province, which did some damage to crops in Kyaukpyu, Henzada, Toungoo and Kyauksè, but was beneficial elsewhere. In March there was a cyclonic downpour, which only damaged tobacco in Kyaukpyu, crops elsewhere being off the ground. The heavy rains in the dry zone divisions were unfavourable to millet, cotton and groundnut, but were excellent for sessamum. Magwe Division reports the present year (as it did the last year) as the best ever known. The variations in the rainfall were exceptionally favourable to paddy, and to the diffusion of irrigation equably throughout the Province.

Area under cultivation.

126. The occupied area increased by 295,060 acres, or about 1½ per cent. on the revised total of last year, to 17,160,671 acres. Thirty districts out of thirty-seven share the increase. The figures are, however, still misleading, as an increase of 185,489 acres in Pakôkku, Amherst, Yamèthin and Upper Chindwin are ascribed, in whole or part, to greater accuracy of statistics; and the increase for Thatôn, 6,975 acres, would be larger but for correction. Increases in Thayetmyo, Minbu and Magwe, are ascribed to extensions encouraged by last year's good rains; a decrease in Katha to bad rains, flood, and cattle disease; and a decrease in Shwebo, to the abandonment of land, which it was found the Shwebo canal would not irrigate. The fallow area increased from 3,336,381 acres to 3,438,125 acres, of which only 618,748 acres are in Lower Burma. The increase of 74,730 acres in Lower Burma is principally due to the bursting of the Pagaing bund for Pegu, and Thatôn, (42,527 acres); to insufficient rain in Prome; and to flood in Bassein. The increase of 27,041 acres in Upper Burma, in spite of large decreases in Shwebo, Sagaing and Yamèthin, is principally ascribed to more accurate measuring in Thayetmyo; the causes already given in Katha (22,534); to unusually large cultivation the previous year in the Lower Chindwin; and to abandonment of groundnut cultivation in Myingyan (40,912).

Cropped area.

127. The total cropped area was 13,722,546 acres, as compared with a revised figure of 13,529,230 in the previous year, an increase of rather less than 1½ per cent. The matured area totals 13,028,033 acres, an increase of 197,443 acres on last year's figures; while the area on which crops failed to mature has decreased by 4,127 acres to 694,513 acres. In Upper Burma, the favourable

CHAP. IV—PRODUCTION AND DISTRIBUTION.

conditions gave a matured crop considerably above the normal, and crop failures were the exception. In Lower Burma, the matured area shows a decrease of 133,421 acres, due to the floods mentioned. The area on which crops failed to mature, in Lower Burma, increased from 38,800 acres to 245,881 acres; Pegu and Thatôn alone accounted for 86,941 acres of the increase.

Irrigated area.

128. The increase of about 67,000 acres, in the irrigated area, was due entirely to the success of tank irrigation in the dry zone, by which the area irrigated by Government tanks rose from 73,779 acres to 110,215 acres, and the area irrigated by private tanks rose from 89,336 acres to 116,241 acres. The area irrigated by Government canals, 409,307 acres, shows a slight decline; and the area attributed to private canals, 252,875 acres, is saved from showing a decline by the inclusion, for the first time, of the area of canal irrigated land in the Lower Chindwin District. Wells used rose from 14,607 to 17,056, the number available rising from 23,773 to 26,570. The total irrigated area was 1,057,076 acres out of 1,425,086 acres irrigable, as against 990,512 acres out of 1,390,427 acres irrigable, in the previous year. The total area irrigated remained at 7 per cent. of the total cropped area, and about half of it was served by works controlled by Government. This half rose by 28,129 acres, owing to the rise in irrigation from Government tanks.

Area under main crops.

129. *Rice.*—The total under rice rose by a quarter of a million acres and is now ten million acres. The area under irrigated rice increased from 975,364 acres to 1,047,023 acres, and that under unirrigated rice from 8,747,192 acres to 8,954,136 acres. In Lower Burma, Pegu, Prome, Tharrawddy and Thatôn decreased by 35,800 acres, owing to the causes already given of flood and lack of rain; Myaungmya shows an increase of 1,500 acres and Toungoo, Pyapôn, Ma-ubin, Hanthawaddy and Amherst show increases of 5,000 to 10,000 acres. In Upper Burma, Katha, Bhamo, Myitkyina, Ruby Mines and Kyauksè show decreases; while the nine districts in the centre of the dry zone show an increase of 277,400 acres, of which 96,400 is irrigated rice. The final forecast of the rice-crop, prepared in February, estimated the total outturn of winter rice in the principal fifteen Lower Burma districts, at 63,362,000 cwts. of cleaned rice, and the outturn per acre at 91 per cent. of the normal outturn, as against 66¾ million cwts. and 98 per cent. in the previous year.

Millet decreased very heavily, by 342,000 acres, to 780,102 acres. Pakôkku alone reports a decrease of 150,000 acres, a doubtful figure; but the decrease was common to all Upper Burma districts, and there is no doubt that the unusual rainfall led to the replacement of millet by winter rice.

Sessamum rose heavily as it did last year. The area under early sessamum rose from 696,262 acres to 824,106; late sessamum fell from 342,461 to 305,883 acres, giving a total rise of 91,266 acres. The change was in the dry zone central districts, principally in Myingyan, and the crop replaced seems to have been *groundnut*, which fell from 248,497 acres to 140,698 acres, or something less than the figure of 1907-08. The final forecast of crop for six districts estimated the outturn of groundnut at 61,000 tons, or 40 per cent. below the previous year.

Cotton decreased from 211,131 acres to 201,874. The final forecast of crop for eleven districts, estimated the outturn at 32,343 bales of 400 lbs. each, or 21 per cent. below the previous year.

Tobacco increased from 58,576 acres to 81,974 acres, mainly in Pakôkku.

Rubber shows an increase from 9,946 acres to 11,622 acres, a figure which would be larger, were it not that only planted up areas are shown this year.

Wheat increased from 34,969 to 37,372 acres, *Maize* from 191,598 to 226,949, and *Pulses* of all sorts from 399,446 to 485,420.

Where the causes and localities of the variations are not quoted, they may be taken to be due to the good rains in the central dry zone districts.

Prices.

130. *Rice.*—The increasing shortage of Indian capital for agricultural investment (alluded to in the paragraphs on Civil Justice and Registration) has a generally prejudicial effect in the price of the staple of the Province. As Chetty advances to cultivators and brokers decrease, the price is more easily forced down by millers and export firms. Last year a fall in price of rice was complained of; and in the year under report, except in one or two places where local causes intervened the fall continued, by one or two annas per maund in Lower Burma, where the price of rice per maund ruled from Rs. 1-4-0 to Rs. 1-14-0; and by much more in Shwebo, Kyauksè and Meiktila, the three districts of Upper Burma which produce paddy for export. The consequence of the fall was that, as in the previous year, a large proportion of the crop was held up by brokers in hopes of a rise. In Bassein the shortage which ensued caused difficulty to millers in fulfilling time-contracts. In Akyab, while the European milling trade continued to decline, more paddy was exported unmilled to India. Moulmein was the only exception to the fall worth mentioning, and there the price was raised adventitiously by competition between a ring and one European firm.

Among minor crops, the prices of *Wheat* were generally above normal; *Sessamum* fell, (but still remained above normal) owing to the large crops; *Beans* varied unaccountably; *Groundnut* rose considerably owing to the limitation of the supply; *Tobacco* was in good demand and sold at very profitable rates; and *Cotton* was satisfactory.

Horticulture.

Agri-Horticultural Societies.

131. There are two Horticultural Societies in the Province, the Agri-Horticultural Society of Burma with headquarters in Rangoon, and the Tenasserim Agri-Horticultural Society at Moulmein. The latter has no land on which to make experiments and issued no report for the years 1908 and 1909. The Agri-Horticultural Society of Burma has now 239 members, including the Municipalities of Rangoon, Mandalay and Bassein, the Burma Railways, and the Irrawaddy Flotilla Company. It expended Rs. 2,545 during the year 1909, making a total of Rs. 1,39,106 spent in permanent improvements to its garden, and leaving a balance in hand of Rs. 4,933. It sold plants, flowers, seeds, orchids and grass, to the amount of Rs. 14,543; purchased seeds, plants and flowers to the amount of Rs. 4,444; and expended Rs. 1,720, of which Rs. 850 was Government and Municipal contributions in its second Annual Flower and Vegetable Show in February 1909. Its third Annual Show was held in January 1910, outside the year of its report, but within the agricultural year reported on. This Show was far superior to any previously held in exhibits and attendance, and the exhibit of the Agricultural Department was especially commended. There are difficulties in the upkeep of the garden due to the shortage in the Municipal water-supply, which will no doubt disappear when the Municipal works in progress are completed.

Experimental gardens.

132. The experimental gardens under the management of the Agricultural Department during the year were situated at Sinlumkaba in the Bhamo District; Myitkyina, Falam, Tiddim and Haka in the Chin Hills; and Taunggyi in the Southern Shan States.

At Sinlumkaba every branch of experiment showed a marked improvement owing to the substitution of Chinese for Indian gardeners. The instruction of the pupils of the Government Model School continued, and it is expected that the Kachins will benefit by the lessons received. Experiments were conducted in green manuring with sunn hemp, and in the cultivation of wheat, oats, pears and cherries, and English vegetables.

The Myitkyina garden continues to do well, and in a year or two may be considered to have fulfilled its functions, after it has been ascertained what fruit trees and vegetables are suited to the locality; their further development may be left to private enterprise.

The heavy rains were rather unfavourable to the gardens in the Chin Hills; all the fruit trees are flourishing, but with the exception of the peach and the small

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

black plum, bear little fruit. In Tiddim and Haka apple trees are bearing well, and the size and quality of the fruit improving. At Tiddim cuttings of apricots and plum trees are promising; an excellent variety of vegetables is obtainable; the cultivation of potatoes has been taken up by the Chins; and onions are well established.

The Taunggyi garden in the Southern Shan States will rise much in importance, when the railway now under construction is completed, and its produce is available for export. At present its condition is unsatisfactory, since it is reported, as last year, to be swarming with insect pests; out of 8,247 fruit trees only 1,654 are bearing fruit. But tobacco, potatoes, coffee and tree tomatoes did well; coffee and tomato seed from the garden, and fruit trees were distributed; and the Entomological Assistant has visited the garden, and concerted measures with the head gardener for the destruction of the pest.

The total expenditure on the maintenance of the gardens fell from Rs. 9,351 to Rs. 7,824; Rs. 1,368 was realised in the sale of produce, as against Rs. 1,093 last year.

Forests.

Forest Reserves.

133. The area of reserved forests rose from 23,581 to 25,691 square miles, by notification, disafforestation, and increase on re-computation of 2,063, 10, and 57 square miles. An area of 1,229 square miles included in the new reserves was settled to protect the head-waters of streams, and to control and regulate their supply; the most important item of this area was the *Zawgyi* Reserve of 730 square miles, settled in the interests of the Kyauksè canal system. Unclassed forests increased by re-computation from 110,868 to 113,007 square miles. The area undergoing settlement during the year fell from 5,171 to 3,474 square miles, of which 1,313 square miles were settled; the pending settlement of 1,050 square miles in the Arakan Division was completed except for final orders. Expenditure including the pay and allowances of Forest Settlement Officers sank from Rs. 31,849 to Rs. 19,038.

Prohibitions under the Forest Rules were issued against *taungya* shifting cultivation, which is very damaging to head-waters of streams, in areas amounting to 322 square miles in the Arakan and Ruby Mines Divisions; against felling unreserved timber in 8 square miles of the Southern Shan States; and against felling unreserved timber for the fuel trade, in 6,813 square miles in the dry zone, with effect, for 6,600 square miles, from the 1st November 1910.

Demarcation and Surveys.

134. The length of boundaries of reserved forests increased from 19,626 to 22,705 miles, including 3,498 miles which do not require demarcation. The length demarcated for the first time fell from 1,037 to 906 miles; 3,602 miles of boundaries were repaired; and the length for demarcation at the close of the year increased from 264 to 1,099 miles. The expenditure on demarcation and maintenance of boundaries fell from Rs. 42,316 to Rs. 29,009. The Survey of India have ceased surveys in Burma, and none was done by them; but Rs. 5,715 was paid them for the survey of the Mosit Reserve last year. Local Officers spent Rs. 3,619 on surveys; the area for topographical survey at the close of the year increased from 9,889 to 11,997 square miles. The total expenditure on constitution of forests by demarcation, settlement, compensation and surveys decreased from Rs. 82,886 to Rs. 74,320.

Working-plans.

135. The area under working-plans increased from 6,970 to 7,279 square miles by the sanction of the plan for the Mawku Circle in the Upper Chindwin Division. The reserved area awaiting working-plans increased from 14,760 to 16,396 square miles; but in this the bulk of the teak-bearing area is under girdling schemes, and the balance of fuel and protective reserves does not need plans at present. No preliminary reports for working-plans were sanctioned; no important deviations from working-plans in force occurred. One working-plan party carried out field work on 227 square miles in the Pegu Circle; two others covered 337 square miles in the Northern Circle; a fourth was engaged in the Southern Circle, but the area covered is not reported. The cost of preparation of working-plans fell from Rs. 28,358 to Rs. 20,929.

Communications and Buildings.

136. Expenditure on communications and buildings fell from Rs. 2,74,907 to Rs. 2,71,295. There was less outlay on roads; and more on buildings. New cart-roads, paths, and bridges fell from Rs. 1,11,685 to Rs. 58,158; and the length of cart-roads and paths constructed fell from 118 and 549 miles to 95 and 464 miles. Timber firms spent Rs. 18,297 on communications to facilitate extraction. Repairs to paths and roads fell from Rs. 22,706 to Rs. 21,157.

New buildings rose from Rs. 80,718 to Rs. 1,25,681. The more important works were the construction of quarters for Divisional Officers at Prome and Pyinmana; quarters for a Subdivisional Officer at Sandoway; and Divisional Offices at Pakôkku and Meiktila. A number of rest-houses and quarters for subordinates were also built, though there was less progress in this direction in the Northern Circle than could be wished, chiefly owing to lack of funds. Repairs to buildings fell from Rs. 50,039 to Rs. 48,864.

Forest offences.

137. The number of reported offences against the Forest Act and Rules fell from 3,735 to 3,494; cases disposed of by Courts and the number of persons concerned fell from 1,081 and 2,058 to 878 and 1,741; convictions and the percentage of conviction fell from 909 to 706 cases, and from 84 to 80 per cent. The number of cases compounded before Forest Officers rose from 2,427 to 2,429 involving 3,226 persons. Of the 3,494 offences reported during the year 43 were injuries to forests by fire, 2,365 were unauthorised felling or appropriation, and 127 were grazing without permission.

Protection of Forests.

138. The area over which fire-protection was attempted rose from 7,457 to 7,727 square miles; but the area burnt out fell from 277 to 65 square miles, and of this small area the destruction of 16 square miles was due to eight fires, originating from departmental fire conservancy itself; the percentage of success rose from 96·29 to 99·2; cost rose from Rs. 2,57,081 to Rs. 2,92,130, and the cost per square mile from Rs. 34-8-0 to Rs. 38. The high average cost is due to high cost in the Rangoon Division, where fire-protection is needlessly expensive and is applied to unsuitable forest; in Minbu, Pyinmana and Mandalay Divisions, where very dry reserves make extensive operations necessary; and in the Southern Shan States, where watchers were unusually expensive. Fire-protection is considered by some officers to be actively destructive of teak, where it is liable to be choked by other species, and to confer immunity upon destructive insects which leads to their increase; steps have been taken to abandon it experimentally over areas where most harm appears to have been caused. At the recent Conference of Forest Officers, it was considered that the full benefit of fire-protection could best be obtained in connection with improvement fellings; that it was desirable to reduce the area of moist teak forest under protection and divert the cost to areas, where improvement fellings were in progress; and a revised scheme of working moist evergreen teak forests was drawn up.

The area of reserved forests open to animals for grazing purposes, rose from 757 to 1,029 square miles; grazing fees again rose from Rs. 8,195 to Rs, 9,061, on account of enforcement of grazing rules in the reserves round Maymyo.

Shifting cultivation known as *taungya* in the hills, destroys large areas of forests and is a menace to the head-waters of streams. During the year attention was drawn to a practice introduced by Kachins among a few hill tribes in the Bhamo and Myitkyina Districts, of sowing the seed of a species of alder known as *Maibo* (*Alnus Nepalensis*), either with the seed of crop, or broadcast after it; this results, after four years, in a thick growth which is practically fire-proof; enriches and protects the soil; reduces the *taungya* rotation from twelve to eight years; and thereby minimises its ill effects and curtails its area. The only drawback is that the alder will not grow below an elevation of 5,000 feet; but above that level its use is spreading spontaneously among the tribes, who have denuded their locality; and the Department has undertaken experiments with a view to promoting its use.

Creepers were cut in over 62,000 acres in the Northern Circle and in over 13,000 acres in the Southern Circle.

Plantations and Experimental Cultivation.

139. The Mergui Rubber Plantation was extended by 94 acres, and was sold after the close of the year. Apart from this, there are 79,088 acres under plantation, teak 3,555 acres, cutch 8,720, *padauk* 86, pine 35, teak *taungya*

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

59,725, teak and cutch *taungya* 6,930, and miscellaneous *taungya* 37 acres. Teak *taungya* was increased by 582 acres reduced subsequently to 364 acres by re-computation and exclusion of failures. Expenditure, exclusive of establishment charges, upon plantations rose from Rs. 90,822 to Rs. 94,818; receipts rose from Rs. 19,876 to Rs. 48,979; of which Rs. 42,707 was from sale of rubber from the Mergui Plantation, and Rs. 3,437 was from sale of thinnings in the Tharrawaddy and Rangoon Teak plantations.

The area, cost, and average cost per acre of improvement fellings rose from 78,195 acres, Rs. 36,028 and 7 annas to 85,990 acres, Rs. 46,535 and 8⅔ annas.

Catalpa speciosa, introduced from America, has proved a failure except at Maymyo and Mogôk, at elevations of 3,500 and 4,000 feet; Manicoba rubber (*Manihot dichotoma*) was a failure in the dry zone, where the seeds refused to germinate; Para rubber (*Hevea Brasiliensis*) is a success and yields rubber freely in the Bhamo and Myitkyina Divisions; this and *Ficus elastica*, which would be in its natural habitat, may be made a commercial success in these localities.

The Assistant Forest Chemist continued his experiments at the Government Tannin Factory, Rangoon, on the commercial production of a decolourised tannin extract from the mangrove; reports are not all in from the firms to which the extract has been sent; but the reports received indicate that further experiment is necessary.

Extraction and sale of timber.

140. *Teak.*—The number of teak trees girdled fell from 122,604 to 112,637, of which 77,827 were in reserves, and 34,810 in unclassed forests. Extraction rose from 270,140 to 284,607 tons; extraction by Government agency fell from 51,101 to 50,041 tons; extraction by purchasers rose from 219,039 to 234,566 tons, an increase of nearly 60,000 tons over 1907-08. Extraction outside the Pegu Circle is in process of transfer from Government agency to lessees under the purchase contract system. But the effect is not yet apparent upon the returns as extraction by Government agency outside the Pegu Circle rose from 16,084 to 18,224 tons. In the Pegu Circle methods of departmental extraction have been improved; the working power of Government timber contractors' elephants has been increased; the control staff has been strengthened; and when the Government timber depôt has been moved to Insein, the provision of mechanical appliances will remove the trouble caused by want of haulage power in Rangoon.

Other timber.—Reserved timber, unreserved timber, and fuel extracted was 71,529 tons, 230,794, and 325,621 tons, against 71,282, 246,112, and 276,589 tons last year; of these amounts 3,031 tons, 4,178 and 16,224 tons, were extracted by Government agency against 6,165, 4,477, and 4,020 tons last year. The large increase in fuel extracted is due to the arrangement during the year to supply the Marine Department direct. The number of sleepers supplied to the Railway Company fell from 104,149 to 15,892, value Rs. 22,436; the balance of sleepers unextracted, 48,126, was disposed of to contractors for the supply of the Company, in accordance with the determination that departmental supply should cease.

Finance.—The financial results of the working of the year will be found in paragraph 205 of this report. Export of timber is dealt with in paragraphs 156 to 160.

The Kheddah Department.

141. The Kheddah Department has now been placed under the Chief Conservator of Forests. Besides the ordinary difficulties of a new venture, it has been handicapped by the high mortality of captures, probably due to difficulties of charge and feeding which may in time be overcome, and by the frauds which the high mortality made possible. The year opened with a herd of 93 elephants: nine died, four were sold and one was returned to its original owner; sixteen calves were born in captivity during the year, three of which died and four were disposed of otherwise; 118 head were captured during the year, of which twenty-six calves died and one was given away; the closing stock thus consisted of 179 head; the value of the herd was increased by the captures from Rs. 3,01,000 to Rs. 3,94,500; deducting this increase, and the revenue of Rs. 8,999 from the expenditure Rs. 1,22,835, there was a net loss on the year's working of Rs. 20,336. The deficit is not so serious as it appears, as a sum of Rs. 3,000 paid in compensation for the retention of the elephant returned, and the travelling expenses of members of the staff to Rangoon to give evidence in the Kheddah cases are included in expen-

diture. The attendances in Rangoon prevented the commencement of Kheddah operations until the middle of March, two months after they should have begun; and the operations were attended with misfortune. Four Kheddahs were held; at Indawgyi in the Myitkyina District, where thirty-six were captured; at Kadu in the Katha District, where only four were captured, and a herd of twenty-five got away; at Sinpyu-in in the Katha District, where forty-five were taken; and at Hlègan Island in the Ruby Mines District where the whole establishment was overwhelmed by heavy rains, and threatened by a rise in the river, but succeeded in capturing twenty-nine head. The remaining four head were noosed singly.

The capture of so large a number in a fraction of the working season, and under such disabilities, gives hopes for the Department. It has been arranged since the close of the year to evade the high mortality due to difficulties of food and tending, by disposing of elephants as soon as possible after capture, instead of training them for two years; and a scheme is under discussion, to largely increase the annual captures and sales, which it is hoped will place the Department on a sound financial footing, and will reduce the devastation caused by the numerous wild herds at large in the Province.

Miscellaneous.

142. Seven recruits in the superior service were appointed by the Secretary of State. Five stipendiary students were selected, and sent to the Imperial Forest College at Dehra Dun, making a total of fifteen students training for the Provincial Forest Service at that institution; one resigned after the close of the year. Eighteen students passed out of the Provincial Forest School at Tharrawaddy, of whom half obtained the higher and half the lower certificate. Special efforts were made to reduce the weakness in arithmetic, which was noticeable in this school, as elsewhere. On restarting in December, there were eighteen students in the Senior and eighteen in the Junior class. The Forest School buildings at Pyinmana were partly completed, and it is intended to move the school there at the end of the school year. A Conference of Forest Officers was held at Maymyo in June 1910. The reorganization of the Subordinate Forest Establishment came into force from the 1st of March 1910. The reorganization of the clerical establishment last year has scarcely had a fair trial yet, but there are complaints in the Northern and Pegu Circles that the cadre is inadequate, and that while the pay is sufficient for qualified Indians who are useless because they know no Burmese, it is insufficient for a qualified Burman. A feature of interest during the year was the commencement of two light railways, by firms working in the Toungoo and Pyinmana Divisions, to carry their timber from the forests to the stream; one is on a two-foot gauge for six miles, equipped with engines; the other is a monorail, working with the Shrewsbury patent self-balancing car, and had been laid for two miles at the close of the year.

Mines and Quarries.

Grants of new concessions.

143. With the exception of the oil-bearing areas comprising Myingyan District and the Magwe Division, prospecting is confined to the western and northern hill districts of the Province, the western fringe of the Shan States, and the hills running south into Tenasserim; in these regions the activity of last year continued. But while prospecting in the western and northern hills showed poor results on the working of old licenses, there was a great expansion in Tenasserim. Search for coal in Henzada, oil and coal in the Upper Chindwin, iron in Sagaing and Shwebo, and various metals in Katha and Mandalay was disappointing, and prospecting leases were freely cancelled. The Mount Pima Mining Company continued to prospect for gold, silver, and other metals in Yamèthin without success. But in the Tenasserim Division the number of applications for licenses (and mining leases) rose from 19 to 92, more than one-third of the Provincial total; and included applications for five exploring, and 85 prospecting licenses, and two for mining leases. Of these applications 13 were granted, 17 withdrawn, one was refused and 61 pending at the close of the year. Two applications were for gold dredging licenses and two for prospecting in coal, iron and manganese. The remainder were for exploring or prospecting licenses in gold, silver, lead, copper,

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

galena, tin, and wolfram. Two Companies are to begin tin mining after the rains in Tavoy. A thirty years' lease of 709 acres for marble quarries in Thatôn was sanctioned by the Government of India. A small copper mine has been floated in Myitkyina.

Petroleum prospecting continued in Myingyan, Minbu, and Thayetmyo with no success. In Pakôkku a new field near Sa'è seems promising and four wells were drilled during the year. In the Magwe Division, the number of acres subject to mining leases, prospecting leases and renewals of prospecting leases for oil issued during the year were 6,448, 51,557 and 24,883; of these, the figures for Pakôkku District were 5,760, 33,520 and 7,680.

The minerals in respect to which applications for licenses or leases have been made during the year, and the number of applications in which they are mentioned are, oil, 60; gold, 36; lead and galena, 32; tin, 32; copper, 23; silver, 17; coal, 14; wolfram, 14; iron and pyrites, 12; graphite, 3; antimony, manganese, mica and zinc, two each; arsenic, cobalt, marble, precious stones, rubies, sapphires, and sulphur, one each. *Minerals* or *Metals* were mentioned generally in 31 applications.

The following figures show the number of applications for licenses and leases, which rose heavily during the year, and their disposal:—

Particulars.	For disposal.						Disposed of.								Pending on the 31st March 1910.		
	Pending on the 31st March 1909.		Filed during the year ending the 31st March 1910.		Total.		Granted		Refused		Withdrawn.		Total				
	New.	Renewals.	New.	Renewals.	New.	Renewals.	New.	Renewals.	New.	Renewals.	New.	Renewals	New.	Renewals	New.	Renewals.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Prospecting licenses	44	2	205	14	249	16	59	7	31	.	40	1	130	8	119	8	127
Mining leases ...	16	...	13	...	29	...	5	..	1	...	3	..	9	...	20	..	20
Exploring licenses	3	...	27	3	30	3	19	1	3	...	4	...	26	1	4		6
Dredging licenses and leases.	1	...	...	...	1	...	..	...	...	...	...	...	...	...	1	...	1
Total ..	64	2	245	17	309	19	83	8	35	...	47	1	165	9	144	10	154

PETROLEUM.

144. The yield of petroleum during the year 1909 increased from 173 to 230 million gallons; and its value from 103·69 to 134·90 lakhs of rupees. The increase was solely in the Yenangyaung Oil-fields, Magwe District, where increased activity led to a rise in output of 63 million gallons. The Yenangyat Oil-fields, Pakôkku District, which fell by over eight hundred thousand gallons, the Singu Oil-fields, Myingyan District, and the oil-wells of Kyaukpyu District attribute their decline to exhaustion. In Akyab the decline is attributed to the cancellation of a lease. No wells were worked in Thayetmyo. In the Yenangyaung Oil-fields, the Twinza Oil Company and the Aungban Oil Company formed last year commenced work and some older Companies extended their operations, increased their drilling staff and built additional storage tanks. A number of wells changed hands at prices ranging from Rs. 30,000 to Rs. 50,000. The Twinza Oil Company bought part of the properties of the Rangoon Refinery Company, which gave up direct work on the fields. A new Company, the Yenangyaung Oil Company, was formed. The pipe-line to Rangoon constructed by the Burma Oil Company was used by them throughout the year but, owing to the necessity for a bridge over Pazundaung Creek, it was not open to the public. Other Companies were catered for by the Irrawaddy Flotilla Company, and the River Transport Company or sold their oil to the Burma Oil Company. The old oil sands show a distinct decline in production, and the new ones struck have a much shorter life than the old sands. Water was struck at a depth of 1,800 feet, and constitutes a danger to the

whole field, which is engaging the attention of all Oil Companies and of Government Officers. A Warden of the oil-fields was appointed during the year and he has been active in securing protection against fire and water. A look-out tower was constructed and a fire brigade equipped; timber in construction of plant and buildings is being replaced by iron; surface oil has been drained; and forges have been concentrated in a place of safety. Rules are under consideration and the questions connected with the appearance of water are being dealt with.

Gold.

145. The quantity and value of the gold produced during 1909 is returned at 8,488·65 ounces, value Rs. 4,92,972. Of this, 42·63 ounces, valued at Rs. 1,948, is gold washed by native workmen, on native lines, in the Banmauk Township of Katha District. The balance, 8,446 ounces, valued at Rs. 4,91,024, is, with the exception of an ounce, valued at Rs. 70, produced in the Pakôkku District, the production of the Burma Gold Dredging Company, in the upper reaches of the Irrawaddy in Myitkyina District, and shows an increase of 495 ounces, value Rs. 31,954, over last year. Rupees 11,118 was paid as royalty to Government. The prospecting dredger, which was under construction, was launched during the year and the Company had five dredgers at work.

The Mole Golden Gravels Company, in Myitkyina District, has not begun work yet, and the Shweli Gold Dredging and Mining Syndicate has been at a standstill during the year and has been granted a year within which to pay its rent due to Government for 1909-10.

Rubies.

146. The Nanyaseik Mines in Myitkyina remain deserted; the only ruby mining carried on during the year was under the supervision of the Ruby Mines Company round Mogôk in the Ruby Mines District. There was no demand for rubies in England and only two parcels were sold during the year as prices have now depreciated by nearly 50 per cent. But there was a good demand for the poorer qualities of stones in the Indian markets, though prices there also fell; production and sale were restricted to cover working expenses; the stock of unsold stones in London was reserved for a rise; and no dividend was declared. The arrears of rent due to the Secretary of State amounted to Rs. 2,63,666 on the 28th February 1909; on an application for remission, it was decided that the payment of arrears might be postponed, on condition that the Ruby Mines Company paid over to the Government of Burma the royalties collected under their lease from native miners with effect from the 1st March 1909, receiving a refund of ten *per cent.* for expenses of collection. At the end of the Company's working year, arrears of rent and Government share of profits amounted to £23,942 1*s.* 10*d.* and a further application was made for remission of these arrears on the ground that the quality of the present outturn was decreasing rapidly, necessitating the opening up of a new field, which the Company could not undertake, unless financial pressure was relieved. The acquisition of house-sites in the centre of Mogôk was completed and the Company extended their mining in that direction. The number of trucks of ruby earth washed during the Company's year was 1,511,458, from which were obtained 210,375 carats of rubies valued at Rs. 9,51,806; 14,396 carats of sapphires, valued at Rs. 12,021; and 40,239 carats of spinels, valued at Rs. 8,566. The total value of the stones obtained was Rs. 9,72,393, as against 1,122,114 trucks washed, yielding stones worth Rs. 7,18,812 in the previous year. The income from royalties rose from Rs. 1,20,786 to Rs. 1,43,406.

Other Minerals.

147. *Jade and Jadeite.*—The Tawmaw Mines in Myitkyina produced 2,487 cwts. in 1909, value Rs. 2,23,384, against 3,367 cwts., value Rs. 3,34,989. The right to collect the royalty sold at a high figure, but the season closed early owing to the stoppage of the pump, as the result of a dispute between its lessees; and survey was delayed by the consequent flooding of the mines. The mines at Hweka and Mamon in Myitkyina and the mine in Pakôkku gave no result.

Tourmaline.—The Ruby Mines Company issued 73 licenses to 73 men at Rs. 2 each, but the amount obtained was not ascertainable. The production of the Hsipaw State in the Northern Shan States fell to seven stones, value Rs. 395. In Möng Mit, as no price could be obtained for the right to collect fees, the issue

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

of licenses commenced, and one license for four men was issued. The local market is spoilt by good finds in the Mekong valley and in Cambodia.

Amber.—Import from the Hukong Mines, in unadministered territory north of Myitkyina, fell to 33 cwts., value Rs. 4,300.

Lead ores, Galena, and Silver.—The Bawdwin Mine in the Northern Shan States, owned by the Burma Mines Company, produced 5,888 tons of lead ore, value Rs. 11,03,094, and extracted 16·5 cwts. of silver, value Rs. 44,946. About 90 tons of lead ore, value Rs. 1,656, were mined at the small mines in the Southern Shan States. The silver extracted in the Southern Shan States was disposed of locally and an account will be found in the paragraph on Mining in the Shan States, *supra*. The Mount Pima Mine, in Yamethin, produced 2,463·5 tons of galena, value Rs. 7,755, and the Sagadaung Mine, in Mandalay, produced two tons, value Rs. 672. The silver contained was not extracted.

Tin ores and Wolfram.—Extraction in Tavoy, where there are only two mines, fell from 10 cwts. to 7 cwts., value Rs. 516; in Mergui from 1,876 cwts. to 1,665 cwts., value Rs. 1,44,165. The decrease in production in Mergui was due to miners entering the service of the Burma Development Syndicate and to depression of price. Special attention was paid to wolfram, but the ores have to be sent for separation to Ipoh in the Federated Malay States.

Soapstone.—The Pakôkku Hill Tracts produced four tons, value Rs. 856, and the production in the Minbu mines rose, owing to the grant of a five years' lease, from two tons to 14 tons, value Rs. 6,300.

Iron ores.—The Burma Mines Company extracted 7,480 tons, value Rs. 14,960, under a prospecting lease, which expired during the year.

Antimony.—The production of the antimony mine in the Southern Shan States declined to 2½ tons, and work ceased.

The Indian Mines Act and numbers employed.

148. The average daily number of persons, employed in mines not subject to the provisions of the Indian Mines Act, were Petroleum 3,571, of whom 2,227 are at Yenangyaung; Iron ore, 40 at Mandalay; and Gold 197 at Myitkyina and 12 at Pakôkku. There were four mines subject to the provisions of the Act in Burma during the year; the Maliwun iron and wolfram mines worked by the Burma Development Syndicate, in Mergui, 152 workers; the Sagadaung galena mine, in Mandalay District, eight workers; the Ruby Mines Company, 1,385 workers; and the Mount Pima galena mine in Yamèthin, 181 workers. With the exception of the Ruby Mines, these mines are in their initial stages. Pay is adequate; no special arrangements for sanitation, or protection, are necessary; the only danger is that from malaria, which is being well taken in hand in the Ruby Mines. The only accidents during 1909 were two fatalities due to carelessness in the Ruby Mines, and a minor accident of an unusual nature in the Mount Pima Mine.

Quarry stones.

149. The quarrying of *clay* in Hanthawaddy increased largely, for bricks for the construction of oil refineries. *Limestone* increased in Hanthawaddy, where it was used for irrigation and drainage purposes; in Meiktila and the Northern Shan States, for roads in construction; and in Mandalay District, where a large quantity of inferior limestone was burnt, and the lime exported to other districts. There was a large increase in inferior *laterite* quarried in Thatôn for use in repair of Rangoon roads. Quarrying of *trap* in the Ruby Mines District increased; and Bassein District shows 12,511 tons, value Rs. 43,022, produced in 1909, against none in the previous year, for use by public bodies. The Northern Shan States show 239,330 tons of *sandstone*, value Rs. 32,340, against none in 1908, quarried for use in road making. The *granite* quarried in Thatôn was 7,640,268 tons, valued at Rs. 68,94,088 or more than 28 times the amount in 1908. The large increase was due to reclamation works in Rangoon and to demand on the Railway and on local roads. On the report of the Geological Assistant, a number of areas in Thatôn were reserved for Government granite quarries and their working placed under the Public Works Department. The granite quarries on the island of Kalagauk in the Amherst District produced 57,500 tons of granite, for use in the River Training Scheme of the Rangoon Port Trust. The number of native marble workers, quarrying in the Sagyin Hills in Mandalay District for alabaster used for images, rose from 80 to 93, but there are no statistics of their outturn

The approximate amount and value of the minerals quarried during 1910 are given below :—

Particulars.	Clay.	Granite.	Laterite.	Lime-stone.	Slate.	Sand-stone.	Trap.	Gravel.	Total.
Number of tons.	1,123,347	7,733,855	302,938	104,797	26	316,812	27,846	119,087	9,728,708
Value, Rupees.	5,89,826	69,87,834	3,14,896	1,69,603	39	1,42,168	64,222	1,28,845	83,97,433

Revenue from Mines and Quarries.

150. The fees, rents, and royalties collected during the year ending 30th June 1910, derived from Petroleum, Rubies, Jade and Amber, rose from Rs. 24,85,339 to Rs. 28,71,928. Collections from Magwe District increased with the output of petroleum from Rs. 17,76,760 to Rs. 21,34,518, a rise that more than counter-balanced the heavy decline under the same head in Myingyan and Pakôkku. The issue of oil prospecting licenses in Thayetmyo and Minbu raised the collections of these districts from Rs. 2,260 and Rs. 2,240 to Rs. 6,304 and Rs. 3,756. Myitkyina shows a rise from Rs. 70,900 to Rs. 84,000, due to the rise in the sum given for the license to collect royalty on amber and jade. The amount of royalties collected by the Ruby Mines Company from native miners and paid in by them under the arrangement made at the beginning of the year, was Rs. 1,28,288. Revenue from *other minerals* rose from Rs. 54,242 to Rs. 74,075; the increase appeared in twenty-four districts and was greatest in Tavoy, Mergui and Myitkyina.

Manufactures.

Principal industries.

151. The numbers of persons supported by the various industries carried on in the Province is given by assuming a rateable increase in the figures for the Census of 1901, but will be inaccurate, because the Census figures were probably smaller than the actuals, and the Census term is now expiring. During the year under report there was a great expansion in oil. Oil-wells are dealt with under Mines, but refineries come under the present head. The principal refineries of the large Companies, are at Syriam with one or two in Rangoon, whither the oil is conveyed through the pipe-line recently constructed by the Burma Oil Company from the Yenangyaung Oil-fields and by tank steamers, belonging to the Irrawaddy Flotilla Company, and River Transport Company. The Syriam oil-works shewed great activity. The plant of the Burma Oil Company was doubled, by the construction of a new refinery. The Indo-Burma Petroleum Company, which took over a refinery from Messrs. Jamal Brothers, worked steadily throughout the year. The Rangoon Refinery Company carried construction far enough to begin refining; and to place oil on the market. Sites were selected for two other refineries, but nothing was done on them. The Burmese refineries at Prome have ceased work altogether, except one at Shwedaung, on account of difficulties in obtaining crude oil. Rice mills and saw mills continued to be the principal industrial ventures in the country; Rangoon continued to hold all but a fraction of the mills (128 to 121, the previous year); the large mills financed by European capital continued to hold a dominating position. But most Lower Burma districts contain three or four rice mills, under Burmese or Indian owners; these worked well throughout the year, and increased in numbers. The opening of three new mills in Thatôn, and one in Pegu, with a corresponding closure of five mills in Amherst, testifies to the stimulus to local industry, and better provision for local consumption, afforded by Railway extension. Local saw mills were however unsatisfactory, most being closed, or worked short, during the year. The principal reason appears to be the difficulty of obtaining timber. The manufacture of *ngapi*, mats, and of cigars, mostly from Madras tobacco with outer leaves of Burmese growth, is making great advances. Manufacture was reported brisk in various localities in silks, silver and gold work,

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

lacquer, and in the artistic umbrellas sold in Bassein; there is an increasing tendency to avoid the slovenly finish, which often disfigures Burmese productions.

Factories.

152. The number of districts in which the Indian Factories Act was in force, increased to fifteen, by the inclusion of a rice mill at Henzada. The number of factories increased, from 280 to 289. Of these 164 were rice mills, and 82 saw mills. No other class of factory reached double figures. The number of operatives increased, from 40,737 to 43,998. Of these the number of women employed was about the same, 894, against 889, but the number of children rose largely, from 271 to 593; Hanthawaddy District, in which the numbers rose from 64 to 308, being responsible for the change.

The general rate of wages remained unchanged. Skilled labourers, such as black-smiths, carpenters, and brick-layers get anything from Rs. 25 to Rs. 60 a month, and coolies receive an average of Rs. 15 per month, between the limits of Rs. 12 and Rs. 18-12-0. The labour market is not over-stocked, and the general condition of the operatives is decidedly good. The work of the children is light, and remunerative.

Inspections were satisfactory, except in Hanthawaddy outside Rangoon Town District, where the number of factories left wholly uninspected was even larger than last year, despite the appointment of the three Subdivisional Officers as Joint Inspectors. Sanitary arrangements in the mills themselves are generally fairly satisfactory. But the coolie lines in the large towns are frequently found in a very insanitary state. In Rangoon, the matter has been under the consideration of the Municipal Committee for nearly two years, and it is hoped that some action may be shortly taken to remedy the sanitary defects of factory coolie lines there.

Accidents increased from 303 to 362. But only 13 accidents were fatal, as against 11 last year, and serious accidents decreased by 27. In almost all cases, the accidents were the result of the victim's own carelessness. Nine prosecutions took place, as compared with two, last year. Of these seven were in Rangoon, of which five were for failures to report accidents. Enquiries are proceeding in Rangoon to determine whether guards for circular saws are necessary.

Trade.

Maritime Trade—Total value.

153. Though the fall in the volume of trade noted last year continued, the figures indicate a considerable recovery. Excluding Government transactions, the total value of exports and imports fell, by 43·46 lakhs, to 5,364·80 lakhs, a decrease of 1 per cent., as compared with a fall of 4 per cent., by 231·43 lakhs, in the previous year; the volume is 780·32 lakhs above the average for the five-year period ending with the year 1907-08. The main features of the foreign trade in the year under report are (1) the depression of the import trade mainly in *cotton*, *woollen*, and *silk* goods, produced by the over-stocking of the market in the previous year, and indicated by a fall in foreign imports of 225·13 lakhs; (2) the partial revival of the export trade, due to larger shipments of *rice* and *mineral oil*, indicated by a rise of 208·52 lakhs in foreign, and coasting exports of Indian produce. The deficit of 21·85 lakhs in foreign exports over imports last year, has been replaced by an excess of 505·46 lakhs in favour of exports.

In coasting trade, exports exceeded imports by 769·48 lakhs, as against 891·97 lakhs, and 482·29 lakhs in the two previous years. The decline of 222·50 lakhs was chiefly due to a fall in shipments of *rice* to Bengal, where famine conditions are improving, and was more than counterbalanced by the increase in shipments of rice to foreign ports. The coasting trade was 49·48 per cent. of the whole, as compared with 51·62 in the previous year.

Government transactions fell by 211·35 lakhs, all of which is accounted for by a fall of 207·12 lakhs in movements of treasure between Burma and India.

Rangoon continues to take the bulk of the maritime trade of the Province. Its percentage was 80·56 of the whole, as against 80·45 last year. Of the balance 19·44, Moulmein (7·12) shews a slight rise; Akyab (6·17) and Bassein

(4·40) slightly decline; and Tavoy, Mergui, Kyaukpyu, Sandoway, and Victoria Point are below one per cent. and negligible in comparison.

The excess of exports over imports in foreign trade was 505·46 lakhs, of which 126·18 lakhs passed through Rangoon; in coasting trade the figures are 769·47 and 702·74.

154. The export of rice forms two-thirds of the foreign export trade of Rangoon; more than half its coasting export trade; and 64 per cent. of the total export and import trade, of all sorts, at subordinate ports in the country. Taking rice and paddy (unhusked rice) together, and considering the total export trade from all ports, both foreign and coasting, the exports for the last three years have been as follows :— The Rice Trade.

—		1907-08.		1908-09.		1909-10.	
		Cwts.	Rs.	Cwts.	Rs.	Cwts.	Rs.
Rangoon	Foreign	21,554,057	10,70,89,107	14,432,298	6,65,29,688	20,065,054	8,32,11,460
	Coasting	14,058,184	7,10,10,044	16,931,559	9,08,19,535	14,454,432	7,66,69,281
Other Ports	Foreign	7,657,694	3,42,06,657	7,466,832	3,36,37,713	9,432,198	3,79,95,295
	Coasting	5,762,215	2,60,83,854	6,286,078	2,99,36,882	6,462,910	2,50,10,535
Total ...		49,032,150	23,83,89,662	45,116,767	22,09,23,818	50,414,594	22,28,86,571

The amount of *paddy* exported from Rangoon is shewn below for these three years; the figures for *paddy* exported from subordinate ports are not available :—

—	Average for the five years ending 1906-07.		1907-08.		1908-09.		1909-10.	
	Cwts.	Rs.	Cwts.	Rs.	Cwts.	Rs.	Cwts.	Rs.
Foreign	17,385	44,593	38,887	1,34,987	55,198	1,84,409	83,693	2,75,251
Coasting	491,683	13,76,535	2,445,832	87,08,228	3,445,718	1,35,16,197	3,599,330	1,40,30,843
Total ...	509,068	14,21,128	2,484,719	88,43,215	3,500,916	1,37,00,606	3,683,023	1,43,06,094

The chief features of the trade of the Province in rice and paddy, for the year under report, are (1) the record total quantity exported to foreign and coasting ports, which has surpassed the previous record of 1907-08; (2) the weaker demand from India resulting in heavier shipments to foreign ports; (3) the lower level of prices; and (4) the steady increase in export of paddy without milling.

In the year under report, about 45 per cent. of the grain available for export was exported, as compared with 38 per cent. last year. *White rice* was 68 per cent. of the total export, and showed a further decline in average price from Rs. 4-12-9 to Rs. 4-0-11. *Rice* exported to Indian ports fell, owing to improved famine conditions in Bengal. But *paddy* exported to Indian ports rose, owing to a partial famine on the Coromandel coast, where paddy for preparation as parboiled rice is preferred, and consequent increased exports of paddy to Madras, notably from Akyab, where rice exports declined heavily in favour of paddy. Owing to the increasing manufacture of *parboiled rice* in Burma, the import of *rice* into Burma declined from 58,542 cwts. to 49,665 cwts., and shipments rose to Ceylon where parboiled rice is used by the Madrassi coolies.

The foreign trade of minor ports advanced considerably. Bassein rose from 3,795,380 cwts. to 5,168,456 cwts. owing to the stimulus to Railway trade afforded by the opening of the Henzada-Kyangin Branch. Akyab and Tavoy declined, partly owing to local prices of paddy ruling higher than those in the European and Malay markets, and were left with considerable stocks of both rice and paddy at the close of the year. Foreign supplies from minor ports went chiefly to Europe.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

The coastwise trade of minor ports decreased, with 184·08 lakhs *paddy*, and 65·12 lakhs *rice*, against 149·01, and 150·35 in the previous year.

In Rangoon foreign exports of *rice* and *paddy* increased by 160·82 lakhs, and coastwise exports sank by 141·50 lakhs, the variation being due to cheaper prices, and weakened demand from India. The greatest improvements were in shipments to Java and the Straits Settlements, due to the lower level of prices in Rangoon compared with Saigon, and to a reported diversion of Saigon rice to Southern China to meet scarcity there. The Japanese market is practically lost to Burma. A notable increase took place in "shipments to Indian ports not British" owing to export direct to Bhavanagar in place of transhipment in Bombay.

Rangoon—Foreign Imports.

155. The aggregate value of the foreign imports into Rangoon was 1,080·67 lakhs, as compared with 1,292·78 lakhs last year. Imports fell from 57·9 per cent. to 47 per cent. of the total foreign trade of Rangoon. There was a decrease in all the groups into which imports are classified, with the exception of Class III. *c*. Machinery and Mill-work, and Class IV, Chemicals, Drugs, Medicines and Narcotics. The total quantity of *liquors* imported declined this year by 161,355 gallons or 12 per cent.; of the decline 153,846 gallons was under malt liquor, and the decrease was attributed to trade depression, the progress of the temperance movement in the Army, and the raising of the limit for retail sales, by general shopkeepers, from one pint to six quarts. Spirits declined 5,871 gallons, the decline being in methylated spirits. Wines declined 1,328 gallons. The value of *provisions* imported, 83·07 lakhs, was the highest on record, just exceeding last year's figure, 83·04. The Straits Settlements contributed 37·49 lakhs, and the United Kingdom 28·38 lakhs, against 38·68, and 26·58 lakhs last year. Fish exhibited considerable variations; wet salted fish (*ngapi*) fell owing to increased output by local fisheries; dry salted fish fell in quantity, but rose in price, with a better demand for higher qualities; and dry unsalted fish rose heavily, with imports of prawns. The imports of *salt* in the year under report, 63,922 tons, are the largest on record, and increased by 7,208 tons in quantity; but the value receded by 5 per cent.; owing to the reduction in the price of German salt. Liverpool salt again fell, from 5,583 tons to 173 tons only; the rapid extinction of this trade is attributed to the introduction of cheaper varieties, and to a question of freight. The consumption rose from 55,341 tons to 64,579 tons, on account of cheapness, and a demand from the local fisheries. German salt was most in demand, followed by the Port Said, and Salif varieties. Imports of refined *sugar* increased by 9,524 cwts., and 2·98 lakhs; Java and Hongkong supplied 87 and 8 per cent. of the total. Under cane sugar, Java rose by 54,325 cwts., and 7·42 lakhs, in consequence of the shortage in the European beet crop; Hongkong fell 20,834 cwts. and 2·26 lakhs. The value of *hardware and cutlery* imported was 40·30 lakhs, as compared with 46·75 lakhs, and 34·90 lakhs in the two previous years. The decline was due to the large stocks in hand from last year, and to general dullness of trade. The value of *metals* imported fell from 138·86 lakhs to 128·65 lakhs, a decrease of 7 per cent. due to general depression in trade. Brass and copper were in excess of normal requirements at the close of last year, and their import fell in the year under report. Unwrought iron rose by 107 per cent. in quantity, owing to the requirements of local foundries; there was a rapid rise in imports of galvanised plates, and sheets which amounted to 13,000 tons, valued at 28 lakhs. Lead improved 12 per cent. in quantity, and 100 per cent. in value, owing to an extended use of sanitary appliances. *Machinery and Mill-work* rose from 48·57 lakhs to 56·64 lakhs, of which the United Kingdom contributed 45·24 lakhs, and the United States of America 9·58 lakhs. The increase was mainly due to the importation of hydraulic cranes for the Rangoon Port Trust Wharves. *Railway plant and rolling-stock* declined appreciably from 43·74 lakhs to 26·73 lakhs, or 39 per cent., owing to the final completion of the Pegu-Martaban, and Bassein Extensions; carriages and trucks, locomotive engines, and other construction materials fell by 7·92, 8·60, and 2·09 lakhs, respectively. But sleepers and keys of wood, imported by Western Australia, rose by 1·73 lakhs. *Drugs, medicines and narcotics* recovered, rising

from 21·46 to 25·20 lakhs; of these, cigarettes (of which the United Kingdom supplied 16·58 lakhs worth) rose from 758,489 lbs., valued at 15·06 lakhs, to 8,657,697 pounds, valued at 17·80 lakhs. Seventy-seven ounces of cocaine were imported, as against eleven last year. But this drug is smuggled in, in large quantities, principally by ships trading from China; the Customs officers seized 1,320 ounces. *Mineral oils* declined from 13·38 lakhs to 9·15 lakhs; kerosene oil, which is imported almost exclusively from the United States of America, declining, with the increasing use of electric light, by 4·20 lakhs or 36 per cent. *Cotton goods* decreased from 349·39 lakhs, to 260·86 lakhs, owing to heavy stocks being carried over, from last year's speculations on the fall in prices. Imports of *raw silk* declined by 134,592 lbs., or 28 per cent., owing to the heavy stocks carried over from last year's abnormal import, but the consumption rose. The value declined from 28·73 lakhs to 17·50 lakhs, the figure of 1907-08. Silk piece-goods, mainly from Japan, also declined rateably. *Woollen goods* decreased from 65·87 lakhs to 25·76 lakhs, a fall of 61 per cent., wholly due to the heavy speculative purchases of the previous year, and to the general trade depression. *Apparel* declined from 45·16 lakhs to 29·65 lakhs, for the same reasons. *Parts of ships* rose from 26·51 lakhs to 32·75 lakhs, owing to large importation of materials from the United Kingdom, for the construction of launches and steamers for the riverine trade.

Rangoon—Foreign Exports.

156. Foreign exports increased from 941·18 lakhs to 1,206·85 lakhs, and recovered considerably from the remarkable fall last year, but remained 91·53 lakhs below the average for the previous five years. All the principal articles of export shared the recovery, as they had shared the fall; the increases in lakhs of rupees were rice 167, rice bran 6, oils 24, cotton 16; hides and skins, grain and pulse, wood and its manufactures, and pig lead each rose about 14 lakhs. Against the rise of 167 lakhs in *rice*, must be set a fall of 141·50 lakhs in coastwise export from Rangoon. *Beans* recovered, rising from 248,506 cwts., valued at 9·64 lakhs, to 301,208 cwts., valued at 11·92 lakhs. *Pulse*, including beans, rose from 281,137 cwts., valued at 11·36 lakhs, to 361,912 cwts., valued at 14·91 lakhs. Under *oils*, the foreign export of *kerosene*, which was negligible last year, rose to 785,932 gallons, valued at 3·92 lakhs. *Paraffin wax* increased from 79,604 cwts., valued at 18·33 lakhs, to 157,775 cwts., valued at 35·83 lakhs, thus doubling last year's record export. The consignments of paraffin wax to Europe were due to a new company; and there were considerable increases in shipments to Australasia, Japan, the United States, and to South Africa, due to an arrangement restricting the export of candles from Burma. The combined figures for foreign and coastwise export, shew the rapid development of the Burma oil-fields, in which the extended operations of the old companies, and the formation of two new companies, have led to an increase this year of a crore of rupees. There was a marked increase in the exports of *raw cotton*, owing to the scarcity of American cotton, which raised prices, and brought on to the market stocks which were held back when prices were unusually low last year. *Cotton seed* rose from 123,376 cwts., valued at 4·15 lakhs, to 148,686 cwts., valued at 5·24 lakhs; the whole trade remained with the United Kingdom, where high prices continued. *Groundnut* fell, from 174,557 cwts. valued at 9·99 lakhs, to 115,623 cwts. valued at 6·37 lakhs; but coastwise export rose from 18,165 cwts. to 113,040 cwts.; and there was a gross rise in export of 35,941 cwts. Export of *groundnut oil*, in which there was practically no coasting trade, rose from 5,212 gallons valued at ·09 lakh to 9,450 gallons valued at ·17 lakh. *Oil cake* advanced from 364,332 cwts. valued at 10·91 lakhs, to 511,193 cwts. valued at 14·66 lakhs, as the rise in vegetable oils increased the quantity; but large shipments of *soy* beans from Manchuria to the United Kingdom brought down the price. *Cutch* continued to decline, from 61,347 cwts. valued at 9·01 lakhs, to 39,470 cwts. valued at 6·47 lakhs, as other crops are more profitable; but a recent rise in prices may revive this trade. *Hides and skins* recovered after two years of depression, and rose from 29·05 lakhs to 43·28 lakhs. Italy took 12·09 lakhs, mostly *light hides*; and Turkey in Asia 8·62 lakhs, mostly *wet buffalo hides*. *Teak* also recovered, rising from 21,363 tons to 29,925 tons; including coasting trade, principally export to India, the recovery was from 94,705

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

tons valued at 95·98 lakhs, to 112,417 tons valued at 117·43 lakhs; and export at Moulmein advanced, by 162 tons, to 4,424 tons. The recovery in teak is attributed to a revival in the ship-building trade, and to the requirements of the British Admiralty; but the foreign shipments are still much behind the average for the preceding five years, 36,426 tons. *Candles* were stationary at 12·40 lakhs. *Jadeston* increased in amount, but fell in value owing to inferior quality; and *lac* fell owing to depression in price. The percentage of the total trade of the port of Rangoon which fell to the British Empire, decreased from 60·6 to 59·6 in the year under report.

Rangoon—Coasting Trade.

157. The coasting private import and export trade of Rangoon, in merchandise and treasure, decreased from 2,116·88 lakhs to 2,034·52 lakhs, or by 3·9 per cent. Excluding treasure, the decrease was from 2,090·03 lakhs to 2,011·89 lakhs. The decline was principally in exports of rice, and imports of groundnut oil; though exports of mineral oils, including kerosene, increased. Imports fell from 661·44 lakhs to 649·56 lakhs, and exports from 1,428·59 lakhs to 1,362·31 lakhs. Imports of *Indian cotton manufactures* declined from 51·86 lakhs to 45·34 lakhs; but this decline was more than counterbalanced, so far as the Province was concerned, by a rise in imports into minor ports. Exports of *pulse* increased, from 406,960 cwts., valued at 18·43 lakhs, to 554,453 cwts., valued at 24·16 lakhs, to meet the scarcity along the Coromandel Coast at Madras; while the export to Bengal fell, with the improvement in famine conditions there. *Paddy*, exported for use as parboiled rice, increased from 3,445,718 cwts. to 3,599,330 cwts.; and *rice* decreased from 13,485,841 cwts. to 10,855,102 cwts. Bengal received 2,560,160 cwts. less, and Madras 397,150 cwts. more during the year. *Kerosene oil*, exported to Indian ports, rose from 208·02 lakhs to 268·36 lakhs, mainly in export to Bengal and Madras, and from 3·88 lakhs to 6·70 lakhs in export to ports within the Province. Export to "Indian ports not British" showed a rise from 7·86 lakhs to 11·71 lakhs. "Other sorts of oil" rose from 18·28 lakhs to 26·45 lakhs, by a transfer of stock to India. The large increase of exports to India is due to the competition of companies newly formed with the old companies, resulting in rate-cutting; and it remains to be seen if the Indian market can absorb the increased supplies. *Fuel oil* supplied to the British Admiralty increased. *Paraffin wax* decreased, from 1·27 lakhs to 1·16 lakhs. *Raw cotton* decreased by 904 cwts. to 30,289 cwts., valued at 8·50 lakhs, of which 30,284 cwts. went to Calcutta. Shipments of *cotton-seed* to Bombay, where prices were very good, amounted to 19,037 cwts., valued at ·57 lakh. *Cutch* declined from 17,128 cwts. to 15,222 cwts., but the value rose, from 2·40 lakhs to 2·97 lakhs. *Groundnut* rose from 18,165 cwts., valued at ·93 lakh, to 113,040 cwts., valued at 6·91 lakhs; Bengal took the bulk of the supplies, at an average value of Rs. 6 and anna 1, against Rs. 5 and anna 1 the previous year. *Lac* fell from 21,194 cwts. valued at 6·42 lakhs, to 15,000 cwts., valued at 2·36 lakhs. *Dressed skins* to the value of 2·08 lakhs were imported, mainly from Madras. *Teak* increased from 73,342 tons, valued at 63·38 lakhs, to 82,492 tons, valued at 71·64 lakhs.

Minor Ports—Foreign Imports.

158. Foreign import trade in minor ports fell, by 4·63 lakhs, to 21·63 lakhs during the year. Akyab, Moulmein and Tavoy declined appreciably; Victoria Point declined heavily; foreign trade became practically extinct at Bassein; and Mergui was the only port to show an increase. The decline in *Akyab* is due, as last year, to decreases in cotton goods and machinery; in *Moulmein*, machinery, betel-nuts, and provisions declined, but sugar and matches advanced, in *Tavoy* decline was due to sugar and matches; at *Victoria Point* the decline was accounted for by reduced importations of machinery, metals, and Railway plant by the Burma Development Syndicate; the decline at *Bassein* was due to the cessation of imports of Railway plant and salt; and the small increase in the trade of *Mergui* is due to a larger import of matches.

Minor Ports—Foreign Exports

159. Foreign export trade in the minor ports rose from 356·02 lakhs to 400·75 lakhs. The net rise, of 44·74 lakhs, was wholly due to rice diverted from the coastwise trade. Bassein, Mergui, Moulmein and Victoria Point advanced; while Akyab and Tavoy receded. At *Bassein* the export of rice improved, owing to the Bassein-Henzada-Kyangin railway; at *Mergui* there was a recovery in the trade in mother-of-pearl shell, principally with the United Kingdom; at *Moulmein*

larger shipments of rice, and teak accounted for the rise; at *Victoria Point* there was an increase in tin ore, exported to the Straits Settlements, by the Burma Development Syndicate, Maliwun; at *Akyab* and *Tavoy* rice decreased, from causes stated under that head. *Kyaukpyu*, for the second year, shipped paddy to a foreign port.

Minor Ports—Coasting Trade.

160. The total value of the import and export coasting trade of the minor ports, in merchandise, declined from 617·78 lakhs to 566·97 lakhs, or by 8·2 per cent. Imports declined from 233·40 lakhs to 227·85 lakhs, and exports from 384·39 lakhs to 339·11 lakhs. The principal articles in the *import* trade, and the value in lakhs, were: cotton manufactures, 46·53; tobacco unmanufactured, 27·41; provisions, 21·62; jute, gunny bags, 13·24; vegetable oils, 8·94; and mineral oils, 6·03. *Exports* were chiefly: paddy, 184·98; rice, 65·12; and teak, 43·44. The shares of the principal ports in lakhs in the combined trade were: Akyab, 246·26; Moulmein, 231·44; Tavoy, 31·83; Mergui, 26·23; and Bassein, 22·63. The principal recipients of the trade, and value in lakhs, were, Madras, 176·75; other Burma ports, 172·17; and Bengal, 131·84, a decline from 248·67 in the previous year.

Transfrontier Trade.

161. The value of the total trade registered in lakhs was 568·05, against 517·33, and 533·90, in the two previous years. Excluding treasure, the figures for merchandise are 428·45, 394·83, and 393·62. Imports and exports for the three years, in lakhs, are 299·14, 256·26, 256·90, and 268·91, 261·06, 276·99; or excluding treasure, 216·89, 184·89, 174·42, and 211·56, 209·93, 219·19. In the year under report imports exceed exports, but if the import of lead from the new Bawdwin Mine in the Northern Shan States, which increased by 27 lakhs, is omitted, the increase in imports is about the same as last year, and is below the figure for exports, which shows a very slight recovery.

Exports of European cotton piece-goods rose by 3¼ lakhs; while there was a decline in twist and yarn, European (4 lakhs), Indian (2 lakhs), and raw cotton (2 lakhs).

Trade with Western China declined, both in imports and exports. Exports of merchandise to the Northern Shan States, and imports from Southern Siam, declined by 5 and 22 per cent. Otherwise the increase of trade was evenly distributed.

The proportion of treasure imported, and exported, to the total trade is very high (about 25 per cent. annually); and the proportions which treasure bears to exports or imports for individual States are in some cases much higher. High figures for treasure are probably inseparable from trade by caravan, in which payments must be in specie, carried across the frontiers; and percentages based on the trade of these States including treasure, are misleading, and are omitted.

Western China.

162. The total trade of Western China further declined. Imports and exports in lakhs, for this and the two preceding years, are 30·57, 34·02, 39·34, and 46·35, 48·55, 48·05; or excluding treasure for merchandise only, 16·12, 16·86, 16·95, and 40·61, 42·25, 41·01. The rate of exchange was unfavourable to silver from China. Export of jade increased by one lakh, and of European piece-goods by 1·04 lakhs; but the decline continued in raw cotton, 1·89 lakhs, and Indian twist and yarn, 3·62 lakhs. The reasons given for the gradual decline in the Western Chinese trade, especially in yarns, are, the restriction by the Chinese Government of the cultivation of the poppy; plague in Bhamo; the competition of Japanese yarn, which is more suitable for the native handlooms; establishment of cotton mills in China; and the French Railway to Yünnan-fu.

Northern Shan States.

163. Imports and exports in lakhs, for this and the two preceding years, are 122·25, 97·48, 82·24, and 78·77, 86·55, 86·63, or omitting treasure the figures for merchandise are 103·86, 81·12, 69·07, and 68·94, 72·86, 76·57. If the value of lead from the Bawdwin Mine, for this and last year, 33·84 and 6·98 lakhs, are excluded, the figures for import will be 70·02, 74·14 and 69·07. Pickled tea imported, rose by 3·71 lakhs, but tea fell by 0·50 lakh; and there was a heavy decline in imports of rice, 5·36 lakhs, due to an unfavourable season in certain localities. Exports of European twist and yarn, and European piece-goods, fell by 4·10 and 1·36 lakhs. Including treasure, and the Bawdwin lead, the year shows an increase of 16·98 lakhs.

Southern Shan States.

164. Imports and exports in lakhs, for this and the two preceding years, are 72·17, 62·45, 67·82, and 93·15, 84·04, 90·73; or omitting treasure, the figures for

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

merchandise are 48·52, 41·86, 46·62, and 74·59, 69·87, 74·33. The chief increases in lakhs, in imports, were ponies 1·84, hides 1·33, *thanatpet* 1·91, and teak 4·07, owing to a good floating season. The chief increases in lakhs in exports were apparel, 1·09; Indian twist and yarn, 1·44; and European piece-goods, 2·31; in these there is a steady annual increase. Including treasure, trade increased by 18·83 lakhs.

Northern Siam.

165. Imports and exports, in lakhs, for this and the two preceding years, are 39·26, 33·47, 38·13, and 31·24, 26·03, 27·01; or omitting treasure, the figures for merchandise are 21·00, 18·84, 20·03, and 19·45, 17·14, 17·80. Imports advanced, principally under elephants, 2·65 lakhs, and teak, 1·30 lakhs, and would have been greater but for an outbreak of cattle disease in Siam, which reduced the imports of cattle by 2·23 lakhs.

Southern Siam.

166. Imports and exports, in lakhs of rupees, for this and the two preceding years, are 8·52, 10·07, 7·24, and 7·67, 7·08, 7·49; or omitting treasure, the figures for merchandise are 6·08, 7·80, 4·92, and 4·98, 4·88, 5·47. Imports of silk piece-goods fell by 2·83 lakhs, owing to an over-stocked market. Including treasure, there was a decrease in trade of ·97 lakh.

Karenni.

167. Imports and exports, in lakhs of rupees, for this and the two preceding years, are 26·37, 18·76, 22·12, and 11·72, 8·80, 17·07; or omitting treasure, the figures for merchandise are 21·30, 15·41, 16·80, and 2·98, 2·90, 3·98. Imports of elephants, and teak, increased, by 3·03 lakhs and 2·01 lakhs.

Public Works.

(*i*) *Roads and Buildings.*

Progress of important works.

168. Rangoon has lately contained the largest Civil Works in progress in the Province. The General Hospital (40¾ lakhs), nearly completed and partially occupied, was provided with special fittings and machinery; the Chief Court (24½ lakhs) was practically completed and was occupied; the foundation of three of the four blocks of the Government Press (2¾ lakhs) was completed to plinth, and the façade was recast; 8½ lakhs were spent on reclamation and equipment of low-lying areas.

Outside Rangoon the quarters for staff and students at the Pyinmana Forest School (1¼ lakhs) were nearly completed and construction of the school house began; the Police Training School (3½ lakhs) at Mandalay was completed; the work was carried through for which funds were available at the Government Agricultural Farm, Mandalay (2¼ lakhs). The progress with Light-houses, Harbours, and the Rangoon Town Lands Reclamation Scheme will be found described in paragraphs 95, 106 and 113 of this report.

Considerable progress was made in the construction of roads in Lower Burma from Local Funds, and in the Northern Shan States from funds amounting to about 4 lakhs provided by the *Sawbwas*, but lack of Provincial Funds brought original works under that head to a stand, and deferred many most important projects, including the housing of the Police throughout the Province; the separation of habituals and casuals in Jails; the Central Lunatic Asylum; and the extension of the buildings of Rangoon College.

A scheme is forming to replace timber by more permanent materials in bridge, and other works, where the rise in the price of timber unduly raises the cost of maintenance. Estimates were under preparation, or were completed for important Sanitary Works, including water-supplies for Kyaiklat, Thayetmyo, Mandalay, Pegu, Yamèthin, and Minbu, and drainage schemes for Moulmein and Kyaiklat.

Administrative changes.

169. Considerable redistribution took place to simplify or cheapen administration. The Maymyo and Mandalay Divisions were amalgamated, the Ruby Mines Subdivision going to the Bhamo Division; the Kēngtūng Division was reduced to a subdivision of the Taunggyi Division; a division was created to deal with the embankments in the Delta; the Chin Hills Subdivision was directly subordinate to the Superintending Engineer; the head quarters of the Toungoo

Circle, renamed the Pegu Circle, were transferred to Rangoon, and the divisions comprised in the Rangoon, Maritime, and Toungoo Circles were redistributed to lighten the work of the Rangoon Circle. Excluding the Town Lands Reclamation Division, which is directly subordinate to the Chief Engineer, the charges stood as follows after the change: *Rangoon Circle*, Rangoon, Rangoon Construction, and Hanthawaddy Divisions; *Pegu Circle*, Pegu, Toungoo, Myaungmya, Tharrawaddy, Bassein, and the Embankment Divisions; *Maritime Circle*, Amherst, Akyab, Sandoway, and Tavoy Divisions with the Light-houses Independent Subdivision; *Chindwin Circle*, Taunggyi, Meiktila, Thayetmyo, Pakôkku, and Chindwin Divisions with the Independent Chin Hills Subdivision; *Irrigation Circle*, the Mandalay Canal, Shwebo Canal, and Môn Canals Divisions, with the Meiktila Irrigation Division; and *Mandalay Circle* with Mandalay, Shwebo, Myitkyina, Bhamo and Lashio Divisions.

Finance.

170. Excluding Irrigation, the total expenditure of the Public Works Department fell from Rs. 1,15,86,989 to Rs. 99,78,390. The comparative figures for this and last year are tabulated below. Imperial Military and Civil Works fell, on completion, by Rs. 1,37,779 and Rs. 3,44,899; works paid for by Local Funds increased evenly, and normally by Rs. 30,671; works paid for by the contributions of Municipalities, Native States, etc., increased by the large sum of Rs. 2,68,110 owing to the activity in road-making in the Northern Shan States. But works paid for by the Province fell from Rs. 81,27,990 to Rs. 67,03,288, and out of that, the sum spent on original works was Rs. 19,64,463, or only *half* the sum spent on original works last year; only *two-thirds* the sum spent in repairs on works in existence during the year; and less by half a lakh than the cost of the establishment engaged on Provincial works, which rose owing to the reorganization from Rs. 17,78,969 to Rs. 20,18,345. As explained in paragraph 188 of this report the curtailment was necessitated by the state of the Provincial finances.

Public Works Expenditure.

Funds	Civil or Military.	Nature of works.	Original.		Repairs.		Cost of Establishment, Tools and Plant and Suspense.		Total.	
			1909-10.	1908-09.	1909-10.	1908-09.	1909-10.	1908-09.	1909-10.	1908-09.
1	2	3	4	5	6	7	8	9	10	11
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial	Military	Ordinary ...	1,18,016	1,29,638	3,25,783	2,84,463	1,61,291	1,93,681	6,27,018	7,64,792
		Special ...	21,923	1,57,015	...	...				
	Civil ...	Buildings ...	1,21,272	4,74,984	51,532	48,382	39,435	36,773	2,16,239	5,60,139
Provincial ...	Civil ...	Buildings ..	11,57,050	18,05,684	6,00,698	5,48,057	20,18,345	17,78,969	67,03,288	81,27,990
		Roads ...	6,38,141	9,33,770	19,56,095	18,66,739				
		Miscellaneous ...	1,69,272	10,55,869	1,63,687	1,38,902				
			19,64,463	37,95,323	27,20,480	25,53,698				
Local Funds	Civil ...	Buildings ...	69,509	30,368	2,650	3,023	1,51,408	1,49,067	8,35,085	8,04,441
		Roads ...	2,65,616	2,40,441	2,38,903	2,68,372				
		Miscellaneous ...	85,918	74,938	21,071	42,705				
			4,21,043	3,45,747	2,62,624	3,09,600				
	Military ...	.....	3,365	1,476	1,479	29,186	815	361	5,659	31,023
Contribution	Civil ...	Buildings ...	54,464	74,830	1,244	315	2,67,258	1,90,383	15,92,106	12,98,631
		Roads ...	3,62,187	85,584	23,460	26,459				
		Miscellaneous ...	8,71,736	9,14,222	12,757	6,839				
			12,88,387	10,74,636	36,461	33,613				
		Total ...	39,41,469	59,78,814	33,98,369	32,59,942	26,33,252	23,49,233	99,78,390	1,15,86,989

CHAP. IV.—PRODUCTION AND DISTRIBUTION. Civil Buildings.

171. The total outlay on buildings fell from Rs. 23,85,866 to Rs. 14,05,295, of which Rs. 1,24,272 was from Imperial Funds; Rs. 11,57,050 Provincial; Rs. 69,509 Local; and Rs. 54,464 from Contributions. The decreases in expenditure were: Telegraphs, Rs. 2,89,259; Police, Rs 2,31,859; Law and Justice, Rs. 1,42,031; Medical, Rs. 1,24,721; Administration, Rs. 98,367; Jails, Rs. 69,156; Post Offices, Rs. 66,358; Education, Rs. 13,910; Forests, Rs. 1,819; and Customs, Rs. 202.

Imperial expenditure includes Telegraphs, Post Offices, Customs, and some administrative items, and fell from Rs. 4,74,984 to Rs. 1,24,272 with the completion of works in progress. A sum of Rs. 49,626 was spent in completing the Wireless Telegraph Station at Victoria Point, and the Telegraph storeyard in Rangoon and in moving the Elephant Point Telegraph Station; Rs. 10,029 was spent in building a Post Office in Rangoon, and in constructing Postal Signallers' quarters at Yenangyaung; Rs. 29,379 was spent on the rebuilding of the Currency Office. Military expenditure is dealt with in paragraph 104.

Provincial expenditure on Police buildings sank from Rs. 3,96,000 to Rs. 83,665. Of this Rs. 26,793 was spent on the Police Training School at Mandalay, chiefly in completing and equipping quarters for the Principal and for the Assistant Superintendents. The Assistant Superintendent's quarters at Kyauktan were improved at a cost of Rs. 4,214. The only other expenditure for the Civil Police was on the completion of three police stations, and a lock-up. The Military Police obtained the completion of two outposts and a barracks in the hills; a second barracks was nearly completed; and latrines were provided for the reserve battalion at Pyawbwè.

Of the amount of Rs. 2,24,292 compared with four lakhs last year, spent from Provincial Funds on Medical Buildings, Rs. 1,64,405 compared with Rs. 2,80,000 last year, was spent in equipping the New General Hospital in Rangoon with fittings, lights, punkahs, and sanitary appliances; levelling and fencing; and providing a paying-patients' block and a power station. The balance Rs. 59,887 compared with Rs. 1,20,000 last year, went in improvements to Meiktila Hospital, Rs. 5,952; a new hospital at Allanmyo, Rs. 5,211; an operation room and improvements at Mônywa, Rs. 9,831; additional wards in Rangoon Lunatic Asylum, Rs. 12,091; and minor improvements on six hospitals.

The total amount spent on administrative buildings sank from Rs. 3,06,969 to Rs. 2,08,602. In the Rangoon Circle Rs. 33,228 was spent in rewiring, installing electric pumps, and replacing zinc by lead in the ball room gutters, at Government House, Rangoon. In the Chindwin Circle Rs. 37,747 was spent chiefly on settlement quarters and a strong-room at Myingyan; a temporary court-house at Kindat in place of that destroyed by fire; and completing accommodation for Assistant Superintendents in the Southern Shan States. In the Mandalay Circle the expenditure Rs. 35,534 is almost wholly on two items; the Agricultural College and Farm at Mandalay, where Rs. 30,152 was spent on the completion of the farm buildings, the Principal's quarters, the office of the Director, and the approach road; and Rs. 4,550 for furniture for the Secretariat clerks' camp at Maymyo. The rest of the Province only spent Rs. 4,528, on quarters for the Deputy Commissioner at Papun and a new court for the same official at Akyab.

The amount spent on new works for Jails sank from Rs. 1,37,000 to Rs. 48,543, and consisted of the following items:—a new wall extending the enclosure at Tavoy; solitary cells at Insein costing Rs. 23,715; fixed cots at Thayetmyo; separation of casuals and habituals at Mandalay, Rs. 12,095; reroofing and extending the Press building at Rangoon, Rs. 8,506; and very minor improvements at Prome, Yamèthin and Myingyan.

Education sank from Rs. 41,000 to Rs. 17,247 spent mainly on accommodation for the Insein Veterinary School; a grant-in-aid of Rs. 8,150 to the construction of a Primary Vernacular School at Falam in the Chin Hills; and in small sums on the Engineering School at Insein, the Shan Chiefs' School at Taunggyi and a girls' school at Sandoway.

Of the total under Forests Rs. 38,754, the sum of Rs. 35,225 was spent on the Pyinmana Forest School.

The only heads which showed an increase were Ecclesiastical and Miscellaneous. Ecclesiastical increased from Rs. 7,090 to Rs. 9,350, out of which a new cemetery costing Rs. 3,442 was provided at Pyapôn. Miscellaneous increased from Rs. 1,03,934 to Rs. 1,54,997, of which the principal items were work up to plinth level on the new Press buildings, Rs. 1,34,408; teak instead of plaster ceilings, Rs. 13,909, and a six-inch fire main, Rs. 10,877, in the new Public Offices, Rangoon; improvements to the Meiktila circuit-house; and quarters for the Subdivisional Officer, Public Works Department, at Myingyan, and for a sub-overseer on the Trans-Salween road.

Local Funds' original expenditure on buildings rose from Rs. 30,368 to Rs. 69,509, which included Rs. 14,796 for a hospital, and Rs. 19,815 for two dispensaries in Toungoo District; and work on three hospitals in the Kyaukpyu and Akyab Districts.

Contribution.—Original expenditure on buildings sank from Rs. 74,830 to Rs. 54,464, and included the completion of hospitals at Tavoy and Mergui, costing Rs. 34,396 and Rs. 33,174; and work on the hospitals of several other Municipalities, which was nearly complete at Sandoway and Henzada, at the end of the year.

Communications—(i) General.

172. The amount spent on original work on communications was Rs. 12,65,944, or only Rs. 6,149 more than last year. The share borne by Provincial Funds was Rs. 6,38,141, or Rs. 2,95,629 less than last year; Local Funds took Rs. 2,65,616, an increase of Rs. 25,175; Contributions shewed a large increase on account of the activity in the Northern Shan States, rising from Rs. 85,584 to Rs. 3,62,187, and so counterbalancing the fall in the Provincial share. Repairs rose by Rs. 60,388 to Rs. 22,17,458. Local Funds and Contributions decreased, but Provincial Funds rose by nearly a lakh, as, owing to the check to original works, more attention and money were available for repairs.

As the Province developed long after Railways became common, the only roads which might be called trunk roads, are a few kept up or under construction where Railways cannot penetrate rapidly, as for instance the Thazi-Taunggyi-Takaw-Kêngtūng road, with the bridle-path on to the Chinese frontier; or the Mogôk-Thabeitkyin road which gives access to the Ruby Mines.

There is great difficulty in maintaining roads, owing to the scarcity of road metal, in the absence of which laterite and *dilon* (burnt clay) are generally used for surfacing, and give a road that is expensive and rapidly deteriorates under heavy traffic. Sanding of unmetalled roads in clay soils, has proved cheap and satisfactory, and quite suitable for cart traffic. The Pegu-Moulmein Railway threw open the granite quarries in Thatôn; but their use for road metal in Rangoon from which much was hoped has, so far, been unsatisfactory, as the stone suitable for road metal is covered with so much over-burden as to be practically unworkable.

Many old timber bridges are showing serious decay; and it is intended to replace them gradually by permanent structures of concrete, iron, etc., but the first cost of these is considerable and no progress was made with the scheme during the year, for want of funds.

Taking the heads for original work, into which communications are divided, unmetalled roads rose by Rs. 1,71,007 to Rs. 6,65,683; Miscellaneous rose by Rs. 1,177 to Rs. 1,51,177; Boats, bridges and ferries also rose by Rs. 1,278 to Rs. 1,318. The other heads declined, "Other roads" falling by Rs. 86,408 to Rs. 88,786; accommodation for travellers by Rs. 37,942 to Rs. 38,955; metalled roads by Rs. 35,837 to Rs. 3,16,702; and arboriculture fell by Rs 7,126 to Rs. 3,323.

The total mileage of roads decreased from 11,318 to 11,174 miles owing to the correction of a mistake of last year which included 229 miles of village footpaths in Kyaukpyu District. Metalled roads kept up by Provincial funds increased by 10, to 1,736 miles; unmetalled roads decreased by 99 miles, to 5,997 miles, owing to transfer to Local authorities or rise in class. Metalled roads maintained by local authorities rose by 9 to 167 miles; unmetalled roads fell by 64 to 3,275 miles, owing to the mistake mentioned above.

CHAP. IV.—PRODUCTION AND DISTRIBUTION. Communications—(ii) Metalled Roads.

173. *Provincial Funds.*—No new construction was possible, but much was done to improve important existing roads. (1) A long trestle bridge was substituted for a causeway on the Taunggyi-Thazi road; timber bridges 22 years old were replaced by arched culverts. It is necessary to keep this road in repair for motors; but it is tried severely by the heavy traffic in carts with narrow tyres which it is hoped will be relieved when the Southern Shan States Railway is completed. (2) Metal was collected for the widening of the Nyaunghla-Twingôn road, which carries a large traffic between the Irrawaddy and the Yenangyaung Oil-fields; a four-ton roller was purchased for use on the road. (3) The widening of the Kokine road continued. (4) Experiments with tar macadam were made on the Prome road. (5) Old bridges were replaced on the Toungoo-Thandaung road. (6) Metal was collected for raising in class the Henzada-Ngathainggyaung road. (7) Two masonry arched bridges, and metal collection, were completed on the Ruby Mines road.

Local Funds.—(8) The Aungdaing-Maungnibyin *kwin* road was completed in Akyab. (9) A steel truss bridge on concrete well-foundations, to cost Rs. 40,438, was commenced in the Thatôn District. (10) The Pyingatha-Kyontani road in the Ma-ubin District was widened. (11) Five out of six and a half miles of embankment were completed on a road in the Myaungmya District. (12) Except for a bridge, the feeder road from Kawkadut to Taungzun railway station was completed.

Contributions.—(13) The sum of Rs. 18,969 was spent on the Momeik-Thitkwebin road to the river in the Momeik Shan State; but a revised estimate to provide for blasting is necessary. Various Native States in the Northern Shan States spent about 3½ lakhs on the (14) Kyaukmè-Namhsan, (15) Hopeik-Mansam, and (16) Hsenwi-Se-u roads.

Communications—(iii) Unmetalled Roads.

174. *Provincial.*—No new lengths of unmetalled road were opened, but some work, restricted by the small grants available, was done in improvement of existing roads. (1) The Minbu-Salin road is being metalled to carry expected Môn Canal traffic. (2) In the Magwe District, owing to the silting of the river at Nyaunghla a road to connect the end of the Oil-fields road with the river was commenced. (3) The Kẹngtūng-Salween mule track was improved by easing gradients, and by constructing causeways and masonry bridges; but the completion of the Taunggyi-Takaw road was hampered for want of funds. (4) Old timber abutments in the Lower Chindwin District were replaced by dry rubble masonry. (5) A diversion to ease gradients was started on the Chin Hills main road. (6) In Shwebo re-inforced concrete was used on one road; work was done on raising two others; and six roads were partly demarcated. (7) Masonry abutments and piers of three bridges were completed on the extension of the Tavoy-Mergui road to Pyinbyugyi, leaving unfinished the superstructure, turfing, boundary pillars, and one bungalow. (8) The Victoria Point-Maliwun road was completed for three-quarters of its length. (9) Except for two bungalows, the Pala-Palaw cart-road in Mergui was completed. (10) The Kyintali-Gwa road in Sandoway was completed for half its length. (11) In the Pakôkku District the Saw-Seikpyu road to Kanpetlet was nearly completed; the Pakôkku-Yesagyo road was finished. (12) Raising the feeder road through the Hanza tank to Hanza Station commenced in Meiktila District. (13) The survey of a road in the Upper Chindwin was completed, and some bridge-building was done between Homalin and Maingkaing. (14) In Yamèthin improvements were completed in the Meiktila-Yindaw road; and began on the Pyawbwè-Yanaung road. (15) Improvement of the Sinkan-Sikaw road in Bhamo continued.

Local Funds.—(16) The original estimate for the road from Martaban to Kyauksarit was worked through, and a revised estimate is in preparation. The Tonaing-Naunglow road was completed at a cost of Rs. 15,967. (17) In Pegu the Kamasi-Ohne road was completed, and a road commenced from Yemon to Sadalin. (18) The earthwork was finished on the road from Shwegyin to Htugyi in Henzada. (19) In the Akyab District the Akyab-Paubinbyin road was completed, except for one bridge; also half the road to Dabaing; a start was made with the steel truss over Nayegan creek on the Akyab-Rathedaung road, where two spans each of 100 feet are to cost Rs. 35,614. (20) A road from

Seikmyandan to Taungnyo in the Yamêthin District, to cost Rs. 57,993 was commenced. (21) In Kyauksè a start was made with the bridge over the Samon at Dayègaung, and the diversion leading up to it. (22) Work began on the Tonbyaw-Tharabwin bridlepath, 92 miles in length, in the Mergui District. (23) A bridge was built over the Chaungzauk stream in the Prome District. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

175. *Provincial Funds.*—An old Court-house in Myingyan was converted into an Inspection Bungalow; three Inspection Bungalows were completed in Katha; two in Magwe; one each in Amherst, Thatôn, and Pakôkku; one was commenced in the Chin Hills, and one in the Southern Shan States. Communications—(iv) Accommodation for Travellers.

Local Funds.—A District Bungalow costing Rs. 15,580 was built at Insein; one completed in Sandoway; and one was commenced in the Lower Chindwin District.

176. Expenditure on new works under the head of Miscellaneous Public Improvements fell by Rs. 9,18,103, or nearly half, to Rs. 11,26,926; Provincial Funds were almost withdrawn, falling from Rs. 10,55,869 to Rs. 1,69,272; Local Funds rose slightly by Rs. 10,980 to Rs. 85,918; Contributions fell by Rs. 42,486 to Rs. 8,71,736. As in other works repairs showed an increase of Rs. 9,069 to Rs. 1,97,515; Provincial Funds increased by Rs. 24,785 to Rs. 1,63,687. Local Funds fell by Rs. 21,634, or half, to Rs. 21,071. Contributions rose by Rs. 5,918, nearly doubling, to Rs. 12,757. Miscellaneous Public Improvements.

Excluding repairs, Improvements to Towns decreased by Rs, 1,06,759 to Rs. 8,06,485; Markets by Rs. 3,396 to Rs. 18,366; water-supply by Rs. 1,58,416 to Rs. 44,154 (owing to the completion of schemes); Sewage and drainage by Rs. 390 to Rs. 8,010; Harbours by Rs. 4,75,101 to Rs. 1,13,278; Light-houses by Rs. 1,81,630 to Rs. 1,09,875. There are only two increases, Paving and streets by Rs. 5,268 to Rs. 17,144 and Miscellaneous by Rs. 2,300 to Rs. 9,593. Light-houses and Harbours are dealt with in paragraphs 106 and 113 of this report. Other Miscellaneous Improvements are discussed below.

Provincial.—The Department began to raise the road across an arm of the lake at Meiktila. The laying out of Loimwe Town in the Southern Shan States continued. Dry rubble side drains at Pyawbwè were partly converted into *pukka* drains. Jungle clearing was completed at Maymyo. The experimental infiltration gallery at Pyinmana was completed, and an ample supply of good drinking water was obtained. Unfortunately water from the similar gallery at Myingyan was pronounced unfit for drinking purposes by the Chemical Examiner. Experimental borings for water in Pakôkku and Myingyan were unsuccessful, and were abandoned. The extension of the Maymyo water-supply was practically completed, by the expenditure of Rs. 1,59,238 out of a sanctioned estimate of Rs. 1,64,142. The tube well at Shwegu in the Bhamo District met a good supply of water at a depth of 150 feet. Boring at Mergui was unsuccessful.

Local Funds.—Work began on a re-inforced concrete bridge in three 20-foot spans at Dabein village, Pegu District. A road was completed from the bazaar to the new Court-house site at Kayan in the Hanthawaddy District. Work began on the Circular Road at Katha. The town roads at Buthidaung in the Akyab District were nearly finished. The Dabein bazaar in the Pegu District was finished. Materials were collected for a cloth bazaar at Einmè in Myaungmya District. Work began in a bazaar at Satow in the Lower Chindwin District, and on sinking tube wells in the Katha District.

Contributions.—Reclamation began over a part of Mergui Town; work began on the improvements to the Septic Tank at Maymyo.

(*ii*) *Railways and Tramways.*

177. The Railway system of the Province remained in the hands of the Burma Railways Company. No further section was opened, the open length remaining 1,527·08 miles. Railways—Construction.

The construction of the *Southern Shan States* Railway, a branch line from Thazi to Yaunghwe in the Southern Shan States, 100 miles in length, was sanctioned and commenced during the year. Some construction has been

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

done as far as Yinmabin (23 miles), but work has not been commenced beyond that point, owing to alterations in alignment necessitating further survey.

Surveys.—The following surveys have been sanctioned.

(i) *Pyinmana-Magwe.*—A re-survey of the first 37½ miles from Pyinmana to Delangyun, with the object of finding a cheaper line, and tapping two new large forest reserves for a supply of sleepers.

(ii *East Daga Loop Line.*—The existing railway from Henzada to Bassein runs west of the Daga stream. The east Daga proposal was for a feeder loop from Neikban to Begayet, and construction was sanctioned, and an allotment made in 1906. But while the project was pending, further study had suggested various alternative loops, and the allotment was transferred to the Pegu-Moulmein Railway, construction being deferred pending further enquiry. The principal considerations to be weighed in the enquiry are—

(*a*) The important centres of population along the Irrawaddy.
(*b*) The paddy producing areas between the river and the existing line.
(*c*) The amount of traffic taken by the Irrawaddy, and its streams in the area.
(*d*) Questions of engineering, connected with the low-lying areas and the embankments.
(*e*) The inaccessibility of the townships of Ngathainggyaung and Lemyethna.

But, owing to the peculiarities of the Delta, these considerations are so complicated that several alternative routes have been proposed, and the question as to the line the loop shall take remains undecided.

An alternative loop—Henzada-Danubyu-Wetchaung-Einmè-Begayet,—with a branch to Danubyu, was surveyed in 1907, and a thorough discussion of this survey between the Railway authorities and the Local Government, with a personal local examination by His Honour, led to the adoption of this proposal, with the variation that the line should run from Henzada to Akyaw, some miles away from the Irrawaddy, instead of skirting the river to Danubyu, and the suggestion that Danubyu would be better supplied by a light railway from Henzada along the bund. Another old suggestion was also adopted, in the form of a proposal for a further loop from Kyontani through Ngathainggyaung, and Lemyethna to Danbi, crossing the existing line. An enquiry by the Railways, from a traffic point of view, confirmed (with a few variations) the conclusion that the loop taken, Henzada to Danubyu (or Akyaw)—Kyontani-Wetchaung-Einmè-Begayet,—was the best course, but before proceeding further more information has been found to be necessary, as to the part of this loop between Henzada and Akyaw, and as to the proposed second loop through Ngathainggyaung, and Lemyethna. For this purpose, during the year under report, the following surveys, to be known as the "Irrawaddy Delta Surveys," have been sanctioned :—

(*a*) Henzada to Pantanaw	65 miles.
(*b*) Ngathainggyaung to a suitable point on the proposed Myogwin-Kamauksu chord (the survey of which had been previously sanctioned) ...	27 „
(*c*) Kyontani to Ngathainggyaung	27 „
(*d*) Henzada to Akyaw	28 „
	147 miles

(iii) *Ta Hapalai-Nam Pai Survey.*—A survey has been sanctioned for a railway 25 miles long, between Ta Hapalai, a point on the Lashio branch, to Nam Pai, a station on the Burma Mines Light Railway. This would bring the Burma Mines into direct connection with the Railway system.

Surveys were in progress during the year on the Waingyi-Nyaunglebin-Madauk-Kyangin-Petye extensions, besides the two mentioned above.

Other proposals.—The report and estimate of the *Zadabin-Chittagong* Railway, which would connect Eastern Bengal with Arakan, are before the Railway Board for consideration.

The *Moulmein-Ye Railway*, a proposal which grew out of an offer by Mirza Abdul Hosein to construct a light railway from Moulmein to Mudôn, has been

abandoned for the present, as the Burma Railways would not undertake it without a guarantee, which neither the Local Government, nor the Railway Board felt able to give. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

The *Malagon-Dawbon* line, to connect the mills on the east-side of Pazundaung creek with Rangoon, was brought to a standstill, on the point as to the type of bridge over the creek to be adopted, which was referred to a Committee during the year.

Important works.—Besides capital outlay on the recently completed Pegu-Moulmein and Henzada-Kyangin Railways, improvements continued in engines and rolling-stock, and in doubling the line between Pegu, and Pyuntaza, and between Hlawga and Wanetchaung. Station-premises were improved at Malagon, Pyuntaza, Rangoon, and Pegu, and Simplex interlocking was placed at all crossing stations between Pegu and Mandalay.

178. The interruptions due to flood and accident are nearly double in number of those of the previous year under the same heads, but the increase was unavoidable. The most noticeable feature of the increase is, that while only one accident due to mischief was reported last year, and no accidents were entered as due to thefts of bolts or plates, inthe year under report there was one accident from theft, and six from malicious obstruction, and a number of other cases of theft, or mischief are reported which did not lead to accident. Interruptions to traffic.

Flood.—In July the main line sank two feet, over a distance of 48 feet, between Thawatti and Ela, but this only led to transhipment for 24 hours. The only interruption of consequence on the main line, was between Zeyawadi and Nyaungchidauk, where the diversion was washed out in May, a bridge injured, leading to transhipment for three days in July and the diversion sank as the water dried up in March. On the Pegu-Moulmein line, two bridges gave way between Waw and Abya in August, necessitating transhipment by boats, and stoppage of traffic, which was not resumed for over a month. There were twenty-three other minor interruptions from flood, and landslip caused by flood, of which eight were on the Lashio extension, and five at the Tharrawaw shore, but in none was serious delay caused.

Accidents.—There were forty accidents, of which twenty-three were to passenger trains, and seventeen to goods trains. In two cases waggons broke back without causing accident. There were eight cases of theft of bolts, in only one of which an accident was caused. In thirteen cases some obstruction was placed on the rails out of malice, in six of which an accident ensued. Excluding a few unusual causes, the numbers of accidents were, six from couplings parting; six from axle or similar breakage; six from collision with foreign objects (two cattle, three vehicles at level-crossings, and a trolly). In passenger trains there were eleven collisions, and twelve derailments. The numbers for goods trains were five, and six. In eight cases permanent way, or rolling-stock, or both, were seriously damaged. In four cases injuries were caused, but there was only one death, and one case of serious injury.

There was a general failure in the difficult task of tracing the culprits in the twenty-one cases of theft, or malicious obstruction. There were only seven prosecutions, and in only two of these was a conviction obtained, in one the culprits having been caught red-handed stealing bolts. There were two other convictions in connection with accident, one of a station-master for carelessly letting a train into the wrong line, and the other of a cartman for getting in the way at a crossing.

All these accidents were minor, except one to a mixed train, due to the theft of two pair of fish-plates, in which the engine and three goods vans fell down the embankment, and two coaches were derailed. The driver and two passengers were slightly injured, and damage to the amount of Rs. 15,770 done to rolling-stock, and to the amount of Rs. 150 to the permanent-way.

179. There was a decrease of 5·76 lakhs on the net earnings on the *main* line, reducing the percentage of net receipts on capital outlay, after paying the Company's share of Rs. 11,32,051, from 4·10 to 3·44. This decrease was due to the large rise in working expenses. Railways—Finance and Traffic.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

The completion estimate of the Pegu-Moulmein Railway, at Rs. 1,53,25,858, is before the Railway Board for sanction.

The Railway Board has sanctioned the completion estimate of the Henzada-Kyangin Railway, at Rs. 67,38,800.

Nothing further has been spent on the East Daga Loop, which still stands at Rs. 24,282, spent out of a sanctioned construction estimate of Rs. 40,04,800.

The Southern Shan States Railway has been sanctioned, at 160 lakhs, by the Secretary of State. Rupees 7,08,265 has been spent, the bulk on location survey.

The expenditure and sanctions for survey are as follows :—

Name of Survey.	Outlay during 1909-10.	Outlay to date.	Sanctioned estimate.
1	2	3	4
	Rs.	Rs.	Rs.
Waingyi-Nyaunglebin-Madauk	2,239	5,649	5,392
Myogwin-Kamauksu	5,335	5,335	11,360
Irrawaddy Delta	15,809	15,809	68,095
Ta Hapalai-Nam Pai	9,920	9,920	25,000
Kyangin-Petye	802	802	819

The general financial position of the Railway system is shewn in the following table. Seven lakhs has to be added to the capital amount spent, for the Southern Shan States Railway, which is not included in the table.

Particulars.	Main Line.		Pegu-Moulmein.		Henzada-Kyangin.		Total.	
	1908-09.	1909-10.	1908-09.	1909-10.	1908-09.	1909-10.	1908-09.	1909-10.
1	2	3	4	5	6	7	8	9
	In Hundreds of Thousands.							
(1) Capital during year ...	60·74	50·12	18·33	3·29	7·93	3·04	87·00	56·45
(2) Number of passengers ...	182·51	185·47	15·00	16·35	3·92	8·38	199·79	208·41
(3) Receipts from passengers	86·96	84·04	6·26	6·57	0·86	2·06	94·04	92·67
(4) Receipts from goods ...	92·62	97·88	2·45	2·83	0·17	0·37	95·24	101·08
(5) Receipts, gross ...	179·58	181·92	8·71	9·40	1·03	2·43	189·32	193·75
(6) Gross working expenses ...	108·31	116·41	4·59	6·16	0·48	1·30	113·38	123·87
(7) Net earnings	71·27	65·51	4·12	3·24	0·55	1·13	75·94	69·88
(8) Percentage of expenditure to receipts.	60·31	63·99	52·70	65·56	46·51	53·37	59·89	63·93
(9) Percentage of net receipts to capital before deduction of the Company's share.	4·67	4·16	2·81	2·16	·92	1·80	4·39	3·91
(10) Percentage of net receipts to capital after deduction of the Company's share.	4·10	3·44	*2·81	*2·16	*92	*1·80	3·88	3·27
(11) Train mileage ...	55·00	56·36	4·48	4·21	0·43	1·12	59·91	61·69
(12) Average earnings per train mile.	3·26	3·23	1·94	2·23	2·38	2·17	3·16	3·14
(13) Average expenses per train mile.	1·97	2·07	1·02	1·46	1·10	1·16	1·89	2·01

The Company do not get any share of the receipts from the Pegu-Moulmein and Henzada-Kyangin branches.

180. The Arakan Flotilla Company propose to construct a steam tramway, for 17 miles, on a 2 feet 6 inches gauge, between Maungdaw and Buthidaung. Tramways.

The Mandalay Electric Tramways show an increase in prosperity. Though the running mileage declined from 526,372 to 486,227, Passengers increased from 2,429,761 to 2,582,746; and Receipts from passengers increased from Rs. 1,92,212 to Rs. 2,03,242.

The Rangoon Electric Tramways continue to show increasing prosperity. Passengers increased from 7,945,368 to 9,308,674, running mileage from 1,404,162 to 1,459,465, and receipts from Rs. 7,55,429 to Rs. 8,76,986.

(*iii*) *Canals.*

181. The Pegu-Sittang and Sittang-Kyaikto canals, 45½ and 14 miles long, provided with locks, are the only canals in Burma maintained by the Irrigation Department solely for navigation purposes, and out of receipts from navigation only; all other canals, except the Twante canal, are primarily irrigation works, and on only one, the Shwetachaung canal in the Mandalay District, are dues for navigation collected. The quantity and value of goods collected, and the earnings of the Pegu-Sittang canal fell from 290,250 tons, 110·66 lakhs, and Rs. 1,58,857 to 264,061 tons, 99·20 lakhs, and Rs. 1,52,045; the quantity and value of goods on the Sittang-Kyaikto canal fell from 20,618 tons and 4·50 lakhs, to 18,053 tons and 4·94 lakhs; but receipts rose from Rs. 5,692 to Rs. 6,124. Expenditure fell on both canals from Rs. 1,40,132 and Rs. 14,397 to Rs. 87,260 and Rs. 10,853, and in consequence of this fall the net revenue from the canals together increased from Rs. 10,020 to Rs. 60,056. The decrease in traffic was most marked in large cargo boats for paddy, and was due to the competition of the Pegu-Moulmein Railway, and to the floods which left less paddy for export. No capital account is maintained for these canals. The revenue received since the Department undertook them has been Rs. 29,49,161 in navigation charges; the expenditure, including indirect charges, has been Rs. 83,59,388; these canals therefore show a departmental loss of Rs. 54,10,227 to the end of the year of report. On the Sittang-Kyaikto canal, a sum of Rs. 6,580 was spent on ordinary maintenance. On the Pegu-Sittang canal, owing to the flooding of the tow-path, its elevation to a height of one foot above high flood level was undertaken, and the bulk of the work completed at a cost of Rs. 5,875; Rs. 17,985 was spent from Local Funds in the collection of metal for the surface of the new path; from the ordinary maintenance charges of Rs. 31,469 the Tawa lock was overhauled, and materials were collected for the repair of a sluice; and changes at the mouth of the Sittang river, where a cut off has occurred, were carefully observed. Navigation Canals.

Out of a total revenue of Rs. 88,644 derived from the Shwetachaung canal, the amount of Rs. 4,000 resulted from the collection of navigation dues, against Rs. 5,700 last year. The total collection of navigation dues from this canal has been Rs. 73,650 up to the end of the year of report, or less than three per cent. of the total revenue derived from the canal.

Irrigation.

182. The Imperial Irrigation works in Burma consist of four Major irrigation canals, known as the Mandalay, Shwebo, Ye-u and Môn canals; the last two are under construction and pay no revenue yet. Irrigation—General.

Provincial works dealt with in the report of the Irrigation Department fall into four groups. First there are the Irrawaddy protective embankments on the west of the Irrawaddy in Henzada, and round Thôngwa island, for which capital accounts have been opened. Secondly there are the three protective embankments on the Sittang river in Pegu District, with the Ma-ubin island embankment,

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

for which no capital accounts have been opened. Thirdly there are a large number of minor tanks and canals, mostly dating from Burmese times, scattered through the dry zone districts of Upper Burma, which mainly take their supplies from rainfall, or from the Madaya river in the Mandalay District; the Zawgyi and Panlaung rivers in the Kyauksè District; and the Man and Salin rivers in the Minbu District. Fourthly there are two navigation canals in the Pegu and Thatôn Districts.

The navigation canals derive their principal revenues from charges on navigation; the rest of the works mentioned above derive their principal revenues from water-rate, or a share of the land tax, or both, or commuted rates, assessed and collected by the ordinary revenue authorities; and the Irrigation Department pay the charges of collection.

There are a few minor works for which neither capital nor revenue accounts have been opened, which are not dealt with in the Annual Report of the Irrigation Department.

The protective embankments are dealt with in paragraph 122 of this report; the navigation canals are dealt with in paragraph 181 above; the following paragraphs deal with other Imperial and Provincial works, and with Finance, which is also discussed in paragraph 198.

Rainfall was in excess of normal during the year, and the supply in rivers and tanks was good and uniform. Heavy floods in the Kyauksè District destroyed 40,000 acres of crops, and caused increased expenditure on repairs; in the Shwebo District, the supply in the river which feeds the Shwebo canal was deficient, and large areas were thrown out of cultivation; in the Pegu District a protective embankment was breached, and the resulting inundation caused widespread destruction of crops.

Irrigation—Finance.

183. The comparative table below shows the capital and revenue accounts of Irrigation works within the Province for the year of report and the previous year. The amount of capital outlay decreased by Rs. 4,15,973, of which the decrease in Imperial outlay was Rs. 71,440 and the decrease in Provincial outlay was from Rs. 3,82,663 to Rs. 38,130 only. The total capital outlay at the end of the year was Rs. 1,96,72,354, of which four-fifths was Imperial. The Mandalay and Shwebo canals paid 4·87 and 7·45 on their capital to Imperial funds against 4·68 and 4·08 last year. And the Embankments paid 27·41, on their capital to Provincial Funds against 26·65. The area irrigated increased by 36,620 acres, of which 1,577 acres were in Imperial and 35,043 acres were in Provincial works. Revenue receipts rose by Rs. 2,29,606, but while Imperial receipts increased by Rs. 2,37,090, Provincial receipts declined by Rs. 7,484. Working expenses decreased by Rs. 45,994; Imperial expenses rose by Rs. 21,971 while Provincial working fell by Rs. 67,965. The net revenue rose by Rs. 2,75,600; Imperial revenue rose by Rs. 2,15,119 and Provincial revenue by Rs. 60,481 which had been gained by the saving on expenses.

Imperial.—Capital outlay fell on the Môn and Shwebo canals by Rs. 1,15,838 and Rs. 59,540; but rose on the Mandalay and Ye-u canals by Rs. 70,863 and Rs. 33,075. The Môn and Ye-u canals are still under construction and gave no revenue. The area irrigated rose 2,144 acres on the Mandalay canal, and fell by 567 acres on the Shwebo canal. But gross revenue for the Mandalay canal only rose by Rs. 15,555, while that for the Shwebo canal rose by Rs. 2,21,535; working expenses were Rs. 405 less for the Mandalay canal, and Rs. 22,376 more for the Shwebo canal. The net revenue increased by Rs. 15,960 and Rs. 1,99,159, for the Mandalay and Shwebo canals, respectively.

Provincial.—Non-capital embankments and irrigation works increased by 18,188 and 20,563 acres in the area irrigated; Capital embankments fell by 3,708 acres. Revenue receipts and working expenses increased for irrigation works by Rs. 83,866 and Rs. 45,833; but decreased for Capital embankments, non-capital embankments, and Navigation works by Rs. 12,661, Rs. 72,309, Rs. 6,380, and Rs. 52,688, Rs. 4,694, Rs. 56,416. Net revenue sank by Rs. 67,615 for non-capital embankments but rose for Capital embankments, Irrigation works and Navigation canals by Rs. 40,027, Rs. 38,033, and Rs. 50,036.

Irrigation Department—Capital and Revenue.

Budget.	Project.	Capital Outlay—Direct and Indirect.			Area Irrigated.		Revenue Receipts.	
		1908-09.	1909-10.	Total to 31st March 1910.	1908-09.	1909-10.	1908-09.	1909-10.
1	2	3	4	5	6	7	8	9
	Major (Productive Works).	Rs.	Rs.	Rs.	Acres.	Acres.	Rs.	Rs.
Imperial.	Mandalay Canal ...	54,100	1,24,963	53,07,527	55,953	58,097	3,34,201	3,49,756
Imperial.	Shwebo Canal ...	3,48,779	2,89,239	55,58,281	148,123	147,556	3,44,912	5,66,447
Imperial.	Ye-u Canal ...	28,309	61,384	7,17,363	Under construction.			
Imperial.	Môn Canals ...	8,74,696	7,58,858	41,54,594				
	Total ...	13,05,884	12,34,444	1,57,37,765	204,076	205,653	6,79,113	9,16,203
	Minor Works and Navigation.							
Provincial.	Embankments for which Capital and Revenue accounts are kept.	3,82,663	38,130	39,34,589	456,366	452,658	13,32,249	13,19,588
Provincial.	Embankments for which only Revenue accounts are kept.	...	...	...	174,825	193,013	5,52,813	4,80,564
Provincial.	Irrigation works for which only Revenue accounts are kept.	...	...	...	293,289	313,852	9,29,805	10,13,671
Provincial.	Navigation works ...	...	...	...	...	...	1,64,549	1,58,169
	Total ...	3,82,663	38,130	39,34,589	924,480	959,523	29,79,416	29,71,932
	Grand Total ...	16,88,547	12,72,574	1,96,72,354	1,128,556	1,165,176	36,58,529	38,88,135

Budget.	Project.	Working Expenses.		Net Revenue.		Percentage of net Revenue to Capital Outlay.	
		1908-09.	1909-10.	1908-09.	1909-10.	1908-09.	1909-10.
1	2	10	11	12	13	14	15
	Major (Productive Works).	Rs.	Rs.	Rs.	Rs.		
Imperial.	Mandalay Canal ...	91,767	91,362	2,42,434	2,58,394	4·68	4·87
Imperial.	Shwebo Canal ...	1,29,725	1,52,101	2,15,187	4,14,346	4·08	7·45
Imperial.	Ye-u Canal ...	Under construction.					
Imperial.	Môn Canals ...						
	Total ...	2,21,492	2,43,463	4,57,621	6,72,740	...	...
	Minor Works and Navigation.						
Provincial.	Embankments for which Capital and Revenue accounts are kept.	2,93,914	2,41,226	10,38,335	10,78,362	26·65	27·41
Provincial.	Embankments for which only Revenue accounts are kept.	94,013	89,319	4,58,800	3,91,185	...	...
Provincial.	Irrigation works for which only Revenue accounts are kept.	5,82,650	6,28,483	3,47,155	3,85,188	...	...
Provincial.	Navigation works ...	1,54,529	98,113	10,020	60,056	...	...
	Total ...	11,25,106	10,57,141	18,54,310	19,14,791	...	...
	Grand Total ...	13,46,598	13,00,604	23,11,931	25,87,531	...	...

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

Major Irrigation (Imperial)—(i) Completed works.

184. *The Mandalay Canal.*—The irrigated area rose from 55,953 to 58,097 acres, an increase which gives rise to hopes that the original area projected may be reached. The net revenue rose from Rs. 2,42,434 to Rs. 2,58,394.

Expenditure on capital account rose from Rs. 54,100 to Rs. 1,24,963. Two regulating falls with raised crests and two main distributaries, works commenced last year, were completed except for a few water-courses; a third main distributary was commenced and half completed, but was delayed by wet foundations for the masonry; a fourth was commenced; the survey and project for a fifth were prepared; a drainage cut between two distributaries was extended; and other small works were carried out. Charges for maintaining the completed part of the canal fell from Rs. 39,472 to Rs. 35,848.

The Shwebo Canal.—The irrigated area fell from 148,123 to 147,556 acres. A considerable area, not yet surveyed, is included by estimation which is probably less than the actual area, and does not appear in assessments, because of initial remission. The decrease is due to the exclusion of areas in the Sagaing District wrongly included in 1908-09; and to decrease in cultivation owing to insufficiency of water at the beginning of the year, with floods later. The net revenue rose from Rs. 2,15,187 to Rs. 4,14,346. The large increase is due to land initially remitted coming under assessment.

Expenditure on capital account fell from Rs. 3,48,779 to Rs. 2,89,239; a system of Brownlow weeds attached to a wire rope was used to divert the current in the Mu river, which was eroding the right bank above the head works of the canal, and threatened the weir. On the main canal, two regulators to regulate the supply to distributaries were completed; the needles in the Bifurcation regulator which were unsatisfactory, were replaced by lift gates; outlet heads for direct water-courses on land untouched by the distributaries, were constructed; the extension of a distributary was undertaken and further projects and surveys were made; a few water-courses from the distributaries are still needed.

On the Hladaw branch canal a distributary and five minors were nearly finished; but an outlet head and half the water-courses for four distributaries are still to be constructed.

On the Môksogyon branch canal, all five distributaries were finished, except some alterations to one distributary, and some minors to another; water-courses for one distributary were nearly completed, but the other distributaries are backward in this respect.

The charges for maintaining the finished part of the canal system rose from Rs. 51,092 to Rs. 64,417; the increase is due to raising the banks of the canal and distributaries in places to counteract their settling and spreading; a length of ten miles in one bank of the main canal, and on both banks for the greater part of the Hladaw branch was planted with trees.

Major Irrigation (Imperial)—(ii) Works under construction.

185. *The Ye-u Canal.*—The capital outlay was Rs. 61,384, bringing the cost up to Rs. 7,17,363 out of an estimate of 49·64 lakhs. A large amount of earthwork was done on the first five miles of the Ye-u canal; and the main canal was set out and levelled for the first fourteen miles; the longitudinal section of the branch canal, and four distributaries were surveyed; materials were collected for two out of the five rest-houses projected.

The Môn Canals.—The capital outlay was Rs. 7,58,858, bringing the cost up to Rs. 41,54,594 out of an estimate of 54·31 lakhs. Good progress was made at the head works in spite of floods. A length of 80 feet of the weir wall was completed, and most of the remaining length was brought up to river bed level. Eight sets of compartment walls in the glacis of the weir were completed except for half the pitching; the talus was finished for a length of 240 feet; the north under-sluices were finished except for the hand-rail on the over-head bridge for working the Stoney sluice gates; the masonry work for the south under-sluices made good progress; a combined Post and Telegraph Office was erected.

On the North Môn canal a capital expenditure of Rs. 30,232 was incurred on finishing the Head Regulator; completing one of the four extra drainage crossings; finishing another all but one-quarter; commencing a crossing originally projected; making the drainage cuts necessary to feed the crossings; completing

one bridge across the canal; and collecting materials for most of the other bridges. Six distributaries were completed except for outlet heads, water-courses, and the Head Regulator of one, at a capital expenditure of Rs. 48,904.

On the South Môn canal a capital expenditure of Rs. 28,463 was incurred on completing the Head Regulator, except for a small part of the superstructure, and pitching to the side slopes of the canal. A capital expenditure of Rs. 1,31,187 was incurred on completing the earth-work of the main canal except for about a fifth of the deep cutting and about 900 feet of earth-work at the end; widening the canal; completing three of the five falls except for pitching, and collecting materials for the others; completing four bridges with re-inforced concrete platforms, except for the superstructure of two; work on three other bridges; and one Inspection bungalow at Shwele. A capital expenditure of Rs. 62,373 was incurred on completing seven distributaries except for gaps for roads, water-courses, and outlet heads; on another distributary the earth-work was three-quarters finished and masonry undertaken; on another earth-work is nearly completed and masonry work three-quarters done; on another the Head Regulator and Fall have been built and earth-work is half done.

The maintenance charges during the year were Rs. 3,795 for the North Canal; Rs. 4,045 for the South Canal; and Rs. 1,729 on the Head Works.

186. In consequence of the plentiful rainfall, the area irrigated by the minor works scattered through the dry zone of Upper Burma, rose from 293,289 acres to 313,852 out of a total irrigable area of 526,646. The gross receipts, consisting principally of the Irrigation share of a consolidated rate charged to cover both water-rate, and land revenue, rose from Rs. 9,29,805 to Rs. 10,13,671. But working expenses rose from Rs. 5,82,650 to Rs. 6,28,483 on account of the heavy expenditure in the Kyauksè District in repairing the damages caused by the floods in November 1908, and the damage to the weirs by flood in 1909; net receipts rose from Rs. 3,47,155 to Rs. 3,85,188. The total amount of revenue received by the Irrigation Department from these minor works since accounts were kept of them has been Rs. 1,92,58,377; and the total expenditure including indirect charges upon them Rs. 1,67,38,156, giving a total balance of revenue of Rs. 25,20,221 against Rs. 21,35,033 last year. The amounts spent in the districts on direct charges during the year were: Mandalay, Rs. 34,049; Shwebo, Rs. 15,701; Kyauksè, Rs. 2,59,061; Myingyan, Rs. 5,438; Meiktila, Rs. 1,46,752; Yamèthin, Rs. 64,910; Minbu, Rs. 63,440; and Magwe, Rs. 2,857. The principal items of expenditure were as follow:— Minor Irrigation (Provincial).

Mandalay.—The Burmese Shwetachaung was partly unsilted, Rs. 602; its maintenance cost Rs. 3,668; its continuation in Mandalay Town was remodelled at a cost of Rs. 41,599 paid by the Municipality. The Taunggan tank was renovated except for a few water-courses, at a cost of Rs. 4,487, besides maintenance Rs. 1,471.

Shwebo.—The Burmese Mu canal, and its works damaged by flood in 1908 were repaired at a cost including maintenance of Rs. 9,041.

Kyauksè.—Contour surveys of the district cost Rs. 1,914. Two falls and about half the work of seven re-inforced concrete bridges, and excavation were completed on the Ngalainzin canal at a cost of Rs. 18,038. The flood damage raised the maintenance charges of the Zawgyi and Panlaung canal systems to Rs. 52,989 and Rs. 25,361. Materials were collected, the head sluice built, and progress made with a fall and excavation on the Nga-o-thindee canal at a cost of Rs. 17,827. The area irrigated fell from 150,901 to 128,854 acres, owing to high floods which in September alone destroyed the cultivation of 40,000 acres.

Meiktila.—The north bund of the Meiktila tank was drained at a cost of Rs. 4,166; work on the escape cost Rs. 6,986; and special damage to the escape caused by floods was repaired at a cost of Rs. 17,835. Maintenance cost Rs. 4,248. The bunds of the Nyaungyan-Minhla tank were strengthened at a total cost of Rs. 13,256; flood repairs to an escape cost Rs. 11,330; the destruction of the floor of a fall cost Rs. 2,022 in repairs and led to an expenditure of Rs. 780 in lowering the floor, and of Rs. 9,149 in constructing a new fall; a distributary was re-graded at a cost of Rs. 981; and Rs. 1,216 was spent on a general scheme of re-grading. Maintenance cost Rs. 5,648. Work on minor tanks, mostly

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

provision of masonry outlets and escapes, cost Rs. 11,688. The area irrigated by the Nyaungyan-Minhla tank increased from 5,992 to 17,622 acres.

Yamèthin.—A rapid below the escape of the Mindan tank cost Rs. 11,328. The talus of the Gônbin Se weir was repaired at a cost of Rs. 1,007; and work done to keep the stream from turning the weir at a cost of Rs. 4,815.

Myingyan.—The Kanna and Pyogan tanks only cost Rs. 1,648 and Rs. 203 maintenance charges. The Kanna tank had a good supply of water for the first time for many years, and irrigated 4,457 acres compared with 884 last year.

Minbu.—The Man Canals and Salin Canals cost in maintenance charges only Rs. 10,632 and Rs. 27,631 respectively.

Thayetmyo.—The surveys for an irrigation project in Myèdè Subdivision were completed at a total cost of Rs. 2,926 and the project abandoned as unfavourable.

Surveys for famine projects costing Rs. 15,481 were continued in the Meiktila, Yamèthin, Myingyan and Pakôkku Districts.

CHAPTER V.

REVENUE AND FINANCE.

REFERENCES—

Land Revenue Administration Report of Burma for the year ended the 30th June 1910.

Report of the Public Works Department, Burma (Irrigation), for the year 1909-10.

Report on the Maritime Trade and Customs Administration of Burma for the year 1909-10.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the year 1909-10, Part I, Foreign Trade.

Report on the Administration of the Excise Department in Burma during the year 1909-10.

Report on the Administration of the Salt Revenue in Burma during the year 1909.

Note on the Administration of the Stamp Revenue in Burma during the year 1909-10.

Note on the working of the Income-Tax Act, II of 1886, in Burma during the year 1909-10.

Report on the Forest Administration of Burma for the year ending the 30th June 1910.

Report on the working of the Rangoon Municipality for the year 1909-10.

Resolution on the Reports on the working of Municipalities in Burma during the year 1909-10.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.

Statistics of British India, Parts IV(*a*), IV(*b*) and VIII.

Gross Revenue.

Gross Revenue.

187. The Receipts and Expenditure of the Province are classified as Imperial and Provincial, separated by the rules laid down in the Provincial Settlement; and Local Funds, which comprise Municipal and other funds raised by special and local bodies for special and local purposes apart from the general revenues. The totals for this year and last year are given below. The balance of Imperial Receipts over Expenditure increased from 328·65 lakhs to 335·43 lakhs. Last year Provincial expenditure exceeded receipts by 20·61 lakhs: this year the receipts exceed expenditure by 25·32 lakhs. In Local Funds, the balance of receipts over expenditure of 36·69 lakhs last year, was replaced by a deficit of 20·08 lakhs this year, owing to the use of loans taken last year on the works for which they were intended.

Funds.	1908-09.		1909-10.	
	Receipts.	Expenditure.	Receipts.	Expenditure.
	In Thousands of Rupees.			
Imperial	3,86,48	57,83	3,89,14	53,71
Provincial	4,51,65	4,72,25	4,68,57	4,43,25
Local ... District Funds	35,60	35,81	35,13	36,61
Local ... Other Funds...	1,53,79	1,22,16	1,29,16	1,45,06
Local ... Municipal Funds	98,55	93,28	80,78	83,49
Total ...	11,26,07	7,81,33	11,02,78	7,62,12

Imperial and Provincial Revenues.

188. The Receipts and Expenditure of the various heads allotted between Imperial and Provincial Funds by the Settlement which came into force on the 1st April 1907, are given below for this year and last year. By the Provincial Settlement a grant of 50 lakhs was made which went into the general balance for the year of settlement, and which was to cover all future contributions for plague (15 lakhs), and excess charges on Civil Works during the first few years. Shortly after the settlement it was decided that Imperial and Provincial Funds would share equally a grant to the Port Trust Authorities of 50 lakhs for the Rangoon River Training Scheme. By the settlement an annual grant of 90·68 lakhs is made from Imperial to Provincial Funds, to redress the balance of Expenditure over

CHAP. V.—REVENUE AND FINANCE.

Imperial and Provincial Revenues.

[IN THOUSANDS OF RUPEES.

No.	RECEIPTS. Major Head.	1908-09. Imperial.	1908-09. Provincial.	1909-10. Imperial.	1909-10. Provincial.	No.	EXPENDITURE. Major Head.	1908-09. Imperial.	1908-09. Provincial.	1909-10. Imperial.	1909-10. Provincial.
1	2	3	4	5	6	7	8	9	10	11	12
...	.....	...	...	...	...	1	Refunds and drawbacks	(b) 4,21	1,21	4,17	1,15
...	.....	...	...	...	...	2	Assignments and compensation.	(b) ...	...	...	...
I	*Land Revenue* ...	1,11,95	2,97,94	1,01,50	3,18,80	3	*Land Revenue* ...	...	68,19	...	66,25
II	Opium	(a) 4,82	...	4,56	...	...	.....	...	..	...	...
III	Salt	(a) 18,90	...	21,01	...	5	Salt	(a) 32	...	26	...
IV	*Stamps*	18,88	18,88	18,06	18,06	6	*Stamps*	55	55	51	51
V	*Excise*	88,59	88,59	83,25	83,25	7	*Excise*	5,96	5,96	6,07	6,07
VII	Customs	(a) 1,24,08	...	1,35,22	...	9	Customs	(a) 4,78	...	4,96	...
VIII	*Assessed Taxes* ...	8,97	8,97	9,17	9,17	10	*Assessed Taxes* ...	19	19	20	20
IX	*Forests*	46,24	46,24	46,82	46,82	11	*Forests*	19,09	19,09	18,95	18,95
X	Registration ...	...	1,94	...	1,83	12	Registration ...	...	82	...	83
XI	Tributes	(a) 4,50	...	4,02	...	...	.....	...	...	...	...
XII	Interest	(b) ...	1,21	...	1,14	13	Interest on ordinary debt	...	67	...	68
...	.....	...	...	...	...	14	Interest on other obligations.	(a) 6	...	9	...
...	.....	...	...	...	...	18	General Administration	(b) 3,78	13,89	4,07	14,23
XVIA	Law and Justice, Courts	...	4,64	...	4,66	19A	Law and Justice, Courts	...	43,91	...	45,25
XVIB	Law and Justice, Jails	...	4,16	...	4,04	19B	Law and Justice, Jails	...	12,83	...	12,32
XVII	Police	...	2,27	...	2,06	20	Police	...	1,19,27	...	1,17,84
XVIII	Ports and Pilotage ...	...	4,47	...	4,81	21	Ports and Pilotage ...	...	12,86	...	12,67
XIX	Education ...	...	1,38	...	1,75	22	Education	...	18,84	...	19,00
...	.....	...	...	...	...	23	Ecclesiastical ...	(a) 1,19	...	1,23	...
XX	Medical	...	61	...	64	24	Medical ...	...	21,22	...	21,18
...	.....	...	...	...	...	25	Political	...	4,12	...	4,04
XXI	Scientific and other Minor Departments.	...	5	...	4	26	Scientific and other Minor Departments.	(b) 65	3,63	65	4,23
...	.....	...	...	...	...	27	Territorial and Political Pensions.	(a) 1,33	...	1,59	...
XXII	Superannuation Receipts.	(b) 90	80	79	25	29	Superannuation, Retired allowances and Pensions.	...	6,79	...	7,02
XXIII	Stationery and Printing	...	55	...	54	30	Stationery and Printing	(b) ...	8,33	...	8,29
XXV	Miscellaneous ...	(b) 79	1,36	51	74	32	Miscellaneous ...	(b) 31	3,54	20	3,89
...	.....	..	...	...	...	35	Construction of Protective Irrigation works.	(a) 13	...	15	...
...	.....	...	...	...	...	41	Miscellaneous Railway Expenditure.	..	14	...	...
XXIX	Irrigation, Major Works, Land Revenue.	(a) 80	...	...	...	42	Irrigation, Major Works	...	...	...	...
...	Irrigation, Major Works, Direct Receipts.	(a) 5,92	...	8,11	...	...	.....	(a) 2,02	...	2,19	...
XXX	Irrigation, Minor Works and Navigation.	...	10,99	...	11,75	43	Irrigation, Minor Works and Navigation.	...	14,69	...	11,38
XXXIV	Military Works ..	99	...	98	...	44	Military Works ...	(a) 7,65	...	6,27	..
XXXI	Civil Works and Contributions.	15	7,10	14	3,22	45	Civil Works ...	5,60	91,47	2,16	67,23
	Total ...	3,86,48	4,51,65	3,89,14	4,68,57		Total ...	57,83	4,72,25	58,71	4,43,35

NOTE.—The items in italics are shared equally. (a) Wholly Imperial. (b) Shared between Imperial and Provincial as laid down in the Settlement, on the principle that each deals with its own charges.

Receipts, which it appeared from the figures then available would recur for a period. The figure given below for the Provincial half of Land Revenue, 318·79 lakhs, is made up of the actual half of Land Revenue 210·14 lakhs; the annual grant 90·68 lakhs; part contribution to the River Training Scheme 15 lakhs; and smaller contributions and adjustments, amounting to 2·97 lakhs, and comprising a grant to Sanitation 3 lakhs, a steamer subsidy 2·64 lakhs; a deduction of water-rate transferred to Imperial Funds 4·40 lakhs, a grant towards the Establishment of the Rangoon General Hospital 0·81 lakh, and some minor items. The opening balances from the settlement to date have been 61·83, 30·53 and 9·92 lakhs; compared with a prescribed minimum of 12·00 lakhs; during the year under report the excess of Expenditure over Receipts was wiped off and the closing balance rose to 35·08 lakhs. From the very year of settlement the revenues of the Province have failed to increase at the rate fixed at settlement on the figures of previous years; reasons for this failure will be found in the paragraphs of this report dealing with each head of revenue. To cope with this failure, increases in expenditure have been kept below the rates sanctioned at settlement, except under the heads of Administration, Law and Justice, Medical and Education, and one or two minor heads; but the increases under these heads are due to exceptional causes, and were amply covered by other heads. Still this was not sufficient; and the fall of the opening balance below the sanctioned figure necessitated retrenchment of expenditure to figures below those of the settlement year if a deficit was to be avoided. The retrenchment was principally in the Public Works expenditure and in expenditure under other heads on necessary works. It was slightly ameliorated by an expansion of the expenditure on Public Works from local funds, but this is a mere palliative. Total Public Works expenditure including irrigation for the last three years (including the year under report) has been 126·02, 106·29 and 78·56 lakhs. Expenditure on 45—Civil Works only, has been 112·44, 91·47 and 67·23 lakhs. These figures are not quite so alarming as they look, as the figures for 1907-08 included expenditure on the Rangoon Hospital now nearly completed, and the figure for last year includes 10 lakhs granted from Imperial Funds to the River Training Scheme. But omitting these contributions, the figures for gross Public Works Department expenditure have been 119·13, 96·11 and 78·36 lakhs and the figures for 45—Civil Works only have been 105·54, 81·28 and 67·03 lakhs. The retrenchment therefore under 45—Civil Works not including contributions, has been 14·25 lakhs, during the year; the amount is now 13 lakhs below the standard figure for annual expenditure 80 lakhs fixed at the settlement; and the amounts spent on original works has fallen to 19·64 lakhs which is only six annas and eight pies, to every rupee spent on Repairs, Establishment, Tools, and Plant and Suspense.

Local Revenues.

189. Local Funds comprise funds for local purposes maintained by thirty-six Districts, forty-five Municipalities, sixteen Towns, seven Ports, and seven Cantonments; and also include four Pilot Funds, the Steam-boiler Inspection Fund, the Educational Syndicate Fund, and the Rangoon Police Reward Fund. The gross Receipts of these funds fell from 287·95 to 245·08 lakhs, and Expenditure rose from 251·25 to 265·16 lakhs; the variations were due mainly to the use of loans carried over for expenditure to the present year in connexion with the River Training and other schemes. The funds met excess expenditure from their opening balances and were all solvent at the end of the year; but in some funds there was a tendency to push expenditure in excess of receipts. The expenditure on *Public Works* from these funds during the year was 135·74 lakhs of rupees made up as follows:—Rangoon Port Trust, 46·96; Rangoon Town Lands Reclamation, 12·39; Rangoon Municipality, Expenditure on Public Health and Convenience, 22·09; Other Municipalities, the same, 25·78; Minor Port Funds, 2·87; District Cess Funds, 18·29; District Funds, 5·65; Town Funds, 1·14; Cantonment Funds, 0·57. The total indebtedness of these funds at the close of the year was 435·36 lakhs, of which 423·97 lakhs, were due to the Public and 11·39 lakhs were due to Government. The sum due to the Public consists of Rangoon Port Trust loans, 239·12 lakhs; and loans issued by the Municipalities of Rangoon, 166·66 lakhs, Moulmein, 10·16 lakhs and Mandalay, 8·03 lakhs. The sum due to Government consists of loans to sixteen Municipalities amounting to 8·68 lakhs, to three Port Funds, 2·57 lakhs and to the Taunggyi Town Fund, 0·14 lakh.

(*a*) *IMPERIAL REVENUE AND FINANCE.*

Imperial Revenues.

CHAP. V.—REVENUE AND FINANCE. Imperial Receipts.

190. The decrease of Rs. 10,45,329 in the Imperial section of Receipts under Land Revenue is due to adjustments between Provincial and Imperial Funds. Omitting this, there was a net increase of Rs. 13,11,582 in Imperial Receipts. The heads, amounts and principal reasons of increase were: *Customs*, Rs. 11,14,759, due to a shifting of shipments of rice from India to Java and the Straits Settlements; *Salt*, Rs. 2,11,085, due to import of cheap salt from Germany; Major works (*Irrigation*) Direct Receipts, Rs. 2,19,022, due to increased use of the Mandalay and Shwebo Canals; *Forests*, Rs. 57,221, due to increased extraction of timber by lessees, and contractors; petty items of increase amounted to Rs. 19,312. The heads, amounts and principal reasons of decrease were: *Excise and Opium*, Rs. 61,291, due to restricting sales; *Stamps*, Rs. 81,951, due to decreases in litigation and transfers of land; *Tributes*, Rs. 47,278, due to remissions in Native States on account of flood; *Miscellaneous*, Rs. 27,217, due to restriction in supply bills and telegraphic transfers, caused by the dullness in trade; petty items of decrease amounted to Rs. 92,080.

Imperial Expenditure.

191. There was a net decrease in Imperial Expenditure of Rs. 4,11,544. The heads, amounts and principal reasons of decrease were: *Civil Works*, Rs. 3,44,899, due to less expenditure on Telegraph, and Post Offices; *Military Works*, Rs. 1,37,780, due to cessation of expenditure on the Infantry Barracks at Maymyo; petty items of increase amounted to Rs. 40,731. The heads, amounts and principal reasons of increase were: *Customs*, Rs. 23,743, due to reorganisation, and launch charges; *General Administration*, Rs. 29,594, due to revision of establishments, and more highly paid officers in the Paper Currency and Accounts Offices.

Land Revenue.

Ordinary Land Revenue.

192. The figures given in the Land Revenue Administration Report which deals with the agricultural year ending the 30th June, differ somewhat from those for the financial year ending the 31st of March. But almost all the revenue is assessed and collected in the nine months common to both years, and explanations of variations are the same for both. The figures given in this, and the succeeding paragraphs are taken from the Land Revenue Administration Report and relate to the agricultural year. The gross land revenue of the Province increased from 410·58 lakhs to 422·46 lakhs. Of this ordinary land revenue rose from Rs. 2,57,89,315 to Rs. 2,61,47,395, and will be found discussed in paragraph 21. The remaining heads are discussed in the following paragraphs.

Capitation-tax.

193. The number of persons assessed to the Capitation-tax in force in Lower Burma rose from 1,314,495 to 1,343,639; collections rose from Rs. 52,90,480 to Rs. 53,96,074, and were 98·26 per cent. of the demand against 98·36 last year. The fall in the percentage is due to a rise in remissions from Rs. 79,071 to Rs. 88,857; Rs. 11,275 was remitted in Pegu on account of the floods; Rs. 3,691, remitted in Myaungmya, was due to entering doubtful assessees in the rolls; in each of the Tharrawaddy, Bassein and Henzada Districts, remissions were over Rs. 7,000; in two districts decreases in remissions were due to refusal to exempt confirmed opium smokers on the score of poverty. The increase in collections was Rs. 1,05,529, and the following districts each contributed over Rs. 10,000 to the increase: Thayetmyo, where the rates were enhanced, Rs. 20,492; Akyab, where immigrant coolies from Chittagong were taxed on blank tickets, and paid readily, Rs. 31,034; Hanthawaddy, where the floating population, mostly mill and other immigrant coolies increased, Rs. 17,115; Prome, where after a good season people stayed at home, Rs. 12,635; Ma-ubin, where the rolls were well checked, Rs. 10,582. Decreases of over Rs. 10,000 occurred in two districts; Kyaukpyu, where there were fewer immigrant coolies, and the rates of two townships were lowered, Rs. 20,892;

and Pegu, where large tracts were flooded, Rs. 10,037. Several districts report a decrease of immigrant field-labourers from Upper Burma owing to the good seasons there. The outstandings at the end of the year, excluding the Railway coolie tax paid after its close, fell from Rs. 464 to Rs. 28, due from untraced defaulters in the Kyaukpyu Township.

Land tax in lieu of Capitation.

194. In the seven districts in Lower Burma, in which Capitation has been commuted to land tax in some areas, the total area thus taxed decreased from 7,603 to 7,370 acres; the collections of current revenue from Rs. 92,867 to Rs. 89,553; and remissions from Rs. 1,934 to Rs. 1,826, of which all but Rs. 40 was erroneous assessment. The decrease in area is due to erosion and acquisition in Henzada. There were no outstandings, compared to Rs. 13 last year.

Thathameda.

195. The number of households assessed to the *thathameda* tax current in Upper Burma, and the collections, in the year under report, and the two preceding years were, 780,886, 760,639, 756,035; and Rs. 41,45,777, Rs. 40,61,102 and Rs. 37,16,741. Remissions of current revenue and of arrears were Rs. 35,250, Rs. 40,121, Rs. 2,82,956; and Rs. 1,871, Rs. 8,564, Rs. 4,817. The amount remitted was the lowest since 1904-05. Remissions of over Rs. 2,000 occurred in the following districts: Myitkyina, where there was a bad outbreak of rinderpest, Rs. 7,598; Mandalay, where Rs. 1,560 was erroneously assessed, and plague was prevalent, Rs. 4,407; Pakôkku, an erroneous assessment, Rs. 3,734; and Shwebo, a poor district, Rs. 3,120. The principal districts contributing to the increase of 20,247 in households were: Magwe, where the oil industry is responsible, 4,972; Sagaing (3,300), Myingyan (2,831), Meiktila (1,965) and Pakôkku (1,556), where emigrants to Lower Burma have been attracted home by the good seasons; Myitkyina, where there has been a steady immigration, 1,226; and Shwebo, where the new irrigation canal is responsible, 904. Only two districts show decreases: Mandalay, where a small decrease of 24 is due to plague, and Kyauksè, where a decrease of 620 is attributed to the return of immigrants to their homes. Magwe, Minbu, and Myingyan show a tendency, developing into custom, to distribute the lump assessment at even rates. Exemptees from Capitation-tax increased normally, from 152,865 to 156,990. Every district, except Myitkyina, Bhamo, and Upper Chindwin, shows an increase of newly married couples. Omitting Rs. 4,337 in Magwe, to be paid by the oil companies, outstandings were Rs. 204 from three districts, compared with Rs. 2,156 from seven districts last year.

Fisheries.

196. The current demands for net licenses, and for leased fisheries rose from Rs. 3,04,490 and Rs. 24,90,807, to Rs. 3,09,596 (the record), and Rs. 26,56,075 (the highest since 1904-05). The arrears from last year, Rs. 2,727, were all recovered; remissions fell from Rs. 24,265 to Rs. 9,850; the total collections rose from Rs. 27,68,342 to the record figure of Rs. 29,44,973; and outstandings were Rs. 10,848, of which Rs. 7,525 was remitted in Prome after the close of the year. Decreases in revenue from net licenses occurred in Pegu (Rs. 5,786) and Myaungmya (Rs. 2,026) districts where new leased fisheries were formed; and in Sandoway (Rs. 5,437), where shrimp nets previously taxed were allowed free. Increases in the price of leased fisheries are explained in Pegu Rs. 57,158, by the subdivision of existing fisheries, and the formation of new ones, and elsewhere by good seasons and supervision. Decreases in Kyauksè are due to the transfer of the bulk of the fisheries to the Irrigation Department; in Ma-ubin there is a decrease of Rs. 18,980, which may be connected with the floods; in Mandalay an increase of Rs. 18,810, due to new fisheries, was extinguished by a fall in demand. Heavy remissions in Prome, amounting to Rs. 13,000, were necessary as the Irrawaddy connected with the Myitmaka river so late that the fish did not ascend to the Inma swamps; in Pyapôn, remissions were due to failure of security; and in the other districts affected, to changes in the value of the fisheries. Procedure has been simplified, by allowing personal security and ceasing the registration of bonds; certain fisheries have been transferred to the Irrigation Department in Upper Burma. Fifty-one pump licenses, for taking pearl oysters with divers, realised Rs. 20,400 as against Rs. 11,600, the record lowest figure, last year; and Rs. 10,000, as against Rs. 13,000, was realised for the right to collect pearl and other shells, green slugs and sea shells, without divers.

CHAP. V.—REVENUE AND FINANCE. Miscellaneous Land Revenue.

197. Miscellaneous Land Revenue increased from Rs. 29,37,277 to Rs. 33,72,102. *Rent of town lands not credited to local funds* increased from Rs. 1,14,289 to Rs. 1,33,327. There was one large increase of Rs. 15,483 in the Hanthawaddy District, due to the extension of Syriam Town, and several small increases. *Fees, Rents and Royalties on Petroleum, Rubies, Jade and Amber* increased from Rs. 24,85,339 to Rs. 28,71,928, and are dealt with in paragraph 150. *Fees, Rents and Royalties on other Minerals,* increased from Rs. 54,242 to Rs. 74,075 and are dealt with in paragraph 150. Receipts under the Village Act, principally fines, increased from Rs. 1,89,819 to Rs. 2,00,949. *Survey fees for Grants and Leases* increased from Rs. 38,883 to Rs. 57,406, of which Mergui, with special rates for rubber leases accounts for Rs. 27,985, more than half the total. *Other Miscellaneous Land Revenue* fell from Rs. 54,705 to Rs. 38,417, of which a decrease of Rs. 17,980 in Mergui is due to the transfer to the Forest Department of credits on account of edible birds' nests and bats' guano.

Canal (Navigation and Irrigation) Revenue.

Canals.

198. In the account of irrigation receipts and charges in paragraph 188 the Finance Department do not show departmental adjustments, but merely the amounts paid in and out by the Irrigation Department excluding capital outlay on Imperial works. In the account given by the Irrigation Department in paragraph 183, all expenses are not shown but only those charged to capital or revenue accounts; and the figures include receipts of land tax collected by the Civil Department, charges incurred by the Civil Department in collection, and indirect charges. The receipts shewn by the Finance Department represent water-rate only. The Imperial expenditure of Rs. 15,481 is the cost of famine surveys, not charged by the Irrigation Department to either capital or revenue accounts. The Imperial expenditure of Rs. 2,19,178 is the working expenses of Major Works including the cost of collection by Civil authorities. The Provincial expenditure of Rs. 11,33,352 consists of three parts: (i) Rupees 9,44,030 the *direct* working expenses on Provincial works with capital or revenue accounts, not including the cost of collection Rs. 67,740; (2) Rupees 1,52,142, spent on numerous small irrigation works for which neither capital nor revenue accounts have been opened; and (3) Rupees 37,180, the capital outlay during the year on Provincial works. Taking the figures shewn in the Irrigation Department accounts, capital outlay on Navigation and Irrigation works during the year fell from Rs. 16,88,547 to Rs. 12,72,574, of which only Rs. 37,180 was Provincial; aggregate receipts rose from Rs. 36,58,529 to Rs. 38,88,135; working expenses declined from Rs. 13,46,598 to Rs. 13,00,604; net revenue rose from Rs. 23,11,931 to Rs. 25,87,531, of which Rs. 6,72,740 was the Imperial share. The net revenue of the Mandalay and Shwebo Canals (Imperial works) rose to 4·87 and 7·45 per cent. on the capital; and the net revenue of the Lower Burma Embankments (Provincial) rose to 27·41 per cent. Capital accounts have not been opened yet for other works in the Province, but their progress may be judged from the percentage of this year's net revenue to the total expenditure on them since they have been in charge of the Department, which was 11·87 per cent. for protective embankments; 2·30 per cent. for irrigation works; and was only 0·72 per cent. for the two navigation canals, which show no present prospect of financial success. Financial details will be found under the head of *Irrigation*.

Sources of Imperial Revenue other than the Land.

Customs.

199. The gross Customs receipts, excluding salt, for the year under report and the two preceding years have been in Rangoon Rs. 1,09,46,366, Rs. 1,01,80,454 and Rs. 1,13,20,284; in Minor Ports, Rs. 25,76,026, Rs. 22,27,094 and Rs. 22,19,947; total for the Province, Rs. 1,35,22,292, Rs. 1,24,07,548 and Rs. 1,35,40,231. Expenditure in Rangoon was Rs. 3,96,878, Rs. 3,82,754 and Rs. 3,76,282; in Minor Ports, Rs. 1,17,439, Rs. 1,17,841 and Rs. 1,16,596; total expenditure, Rs. 5,14,317,

Rs. 5,00,595 and Rs. 4,92,878. The leading feature of the recovery in Receipts of minor ports this year is the large increase in export duty from Rs. 20,35,784 to Rs. 23,91,496 in Customs receipts from minor ports, to which Bassein, Moulmein, and Akyab contribute 12·52, 8·43 and 2·28 lakhs, compared with 11·07, 5·81 and 2·88 lakhs last year. This increase is due to improved railway connections with Moulmein and Bassein, and to the change in the rice market from India to foreign ports. In Rangoon, export duties increased from Rs. 37,18,712 to Rs. 53,18,624 compared with the five years' average of Rs. 63,88,749; and import duties fell from Rs. 64,08,839 to Rs. 55,59,406 towards the five years' average of Rs. 47,25,909. The decrease in import duties was due to the overstocking of cotton and other manufactures last year; the increase in export duty is accounted for by the change in the rice market from Indian ports to foreign ports. Increased duties on silver, liquors, petroleum and tobacco came into effect from February 1910; the only effect noted hitherto has been a decrease in the import of cheap cigarettes and tobacco, though the replacement of foreign country-fermented liquor in regimental consumption by the local brewage, and the large transfer of stocks of petroleum to India may have a connection with the enhancement of the duties. The Customs Department collects for other Departments light-house dues, royalties on cutch and lac and the cess on tea. The small increase in expenditure is due to the transfer of the cost of upkeep of Customs launches, Rs. 5,891, to Customs from the Port Officer's fund; to the formation of an audit office and to other increases in establishment charges. Refunds of export duty rose from Rs. 56,480 to Rs. 1,05,423, owing to short shipments of rice. The number and value of packages passing through the bonded warehouse at Bhamo overland to Têngyüeh in China fell from 1,939, value 5·28 lakhs, to 1,543, value 4·31 lakhs, a decrease of 18 per cent. in value; the early extinction of this traffic is anticipated, as the rough hilly road from Bhamo to Yünnan-Fu cannot compete with the railway to Tali-Fu. Cotton piece-goods, which formed 68 per cent. of the trade, fell by 30·5 per cent. The proportion of the trade in English hands fell from 74 to 68·4 per cent. Drawbacks fell from Rs. 18,509 to Rs. 14,933. The cost of the warehouse establishment fell from Rs. 5,137 to Rs. 5,081.

Salt.

200. The salt revenue is derived from customs, mainly at Rangoon, and from excise, which in seven districts is collected direct from bond by a special salt staff, and in the remaining districts is assessed indirectly on the number of cauldrons, or pots used. During the year under report, the Government of India passed orders on the recent enquiry into the conditions of the industry, directing its gradual suppression in those districts where the total revenue demand falls below Rs. 2,000; its concentration in the remaining districts; the absorption of its staff and their duties in the Excise Department; and the enhancement of the present low excise by 25 per cent.

The total revenue, including duty on salt fish, rose from Rs. 20,46,350 to Rs. 21,12,836, the items being: salt removed from bond, a rise from Rs. 15,93,703 to Rs. 16,43,592; excise on local manufacture, a rise from Rs. 3,45,158 to Rs. 3,72,698; and duty on salt fish, a fall from Rs. 1,07,489 to Rs. 96,046.

The year began with large stocks of both imported and local salt in bond; during the year foreign imports fell from their record figure, 1,777,687 maunds to 1,355,359 maunds, and local production from 834,108 maunds to 706,171 maunds, but the average retail price per maund for the Province rose from Rs. 2-13-3 to Rs. 2-15-6, and wholesale prices of both local and imported salt fell slightly, stimulating trade and consumption, and the local manufacture of salt fish, and causing a depression in imported salt fish. Imported salt began to be used for the manufacture of salt fish, though local salt, usually used was in good demand for the purpose in Hanthawaddy, and in the Irrawaddy Division.

The total estimated consumption of salt during the year, obtained by adding the amount taken out of bond, in customs and excise, to the estimated outturn of districts where indirect taxation is in force, increased by 51,441 maunds to 2,382,317 maunds. The salt taken out of bond in the customs, 1,635,703 maunds, was a record amount, and the stock left in bond at the close of the year sank from 704,610 maunds to 389,923 maunds. The consumption of salt locally

CHAP. V.—REVENUE AND FINANCE.

manufactured increased from 737,173 maunds to 746,614 maunds, the percentage of local salt consumed to total consumption remaining at 32 the figure of last year.

The feature of the import trade was the low price, determined by the large and increasing imports of cheap German salt, the figures in maunds for which, in this and the two preceding years, stand at 657,708, 506,522 and 491,938, which formed 84 per cent. of the issue from bond, displacing other imported varieties. Salt from the United Kingdom is falling out of the market altogether, as shown by the decreasing figures of import 3,866, 384,981, and 437,225, and by the fact that, in spite of the negligible English import this year, 156,923 maunds are still in bond, as against 244,226 maunds last year. Among minor items, Egyptian salt from Port Said doubled, but imports from Aden, Spain and Salif declined. Except for an insignificant amount to Port Victoria, no salt was imported into any port outside Rangoon, the heavy stocks in bond at other ports from the previous year being ample for their requirements.

The features of the local manufacture were, that though local salt remained in demand, the number of manufacturers declined, and the average time spent in boiling, and average outturn per cauldron or pot decreased. The number of licenses issued, and cauldrons and pots used, fell. The main causes were the stocks in bond from the previous year, a partial failure in the fishing season, and the heavy and favourable rains which diverted the salt boilers to agriculture, especially in the dry zone districts of Upper Burma. These same rains interfered with salt boiling undertaken, curtailing its period, and decreasing its outturn per cauldron or pot.

Opium.

201. The Excise Department of the Province purchases opium from the Government of Bengal at Rs. 8-8-0 per seer, and sells it to the licensed vendors of opium in the Province at rates, which ranged this year (with two small exceptions) from Rs. 60 to Rs. 75; the licensed vendors make their profit by retailing the opium at the fixed rates, mainly Rs. 80 per seer and Rs. 100 per seer, for the raw and cooked varieties. The purchase price paid by the Excise Department to Bengal forms the Imperial revenue under the head of opium. The profit made by the Excise Department is credited as revenue under the head of Excise. In the year under report, purchases from the Government of Bengal declined from 56,893 seers, value 4·82 lakhs, to 54,814 seers, value 4·56 lakhs. As in last year, the decrease is due to the efforts of the Department to reduce the use of the drug. The issue and sale within the Province will be found discussed in the paragraph dealing with Excise.

Excise.

202. An increased import duty and countervailing excise were placed upon liquors in February 1910. An enquiry into crime and drunkenness yielded negative results; but steps were taken to enable Excise Superintendents to take action where intoxicating liquors were found to have contributed to crime. The advisory Excise Committees did good work. Great care was taken to check illicit consumption of opium during the year. A joint enquiry into smuggling, by Officers of the Excise Departments of Burma and of Eastern Bengal and Assam, gave some results of value. By the Burma Opium Act Amendment Act, 1909, persons reputed to live by illicit dealings in opium can now be placed upon security. Resident Excise Officers have been active in verifying the statements of purchasers by personal visits; the powers to reduce the daily allowance have been freely used. Large purchasers of opium in Rangoon have been encouraged to return their pipe refuse (*pyaungchi*) for destruction; the sale and consumption of this has led many young Burmans to acquire the opium habit. The restriction of cultivation in Yünnan doubled the price there and in the Northern Shan States, and has checked smuggling over the Northern and Eastern boundaries of the Province. The Western land boundary in Arakan has been specially watched; and frequent and large seizures have been made upon ships entering the ports from Calcutta, Coconada and China; there has been some reduction in the use of smuggled opium. The fall in opium consumption has been accompanied by a large increase in the illicit use of *cocaine*, which constitutes some danger.

Excise Revenue and Expenditure fell from Rs. 82,15,305 and Rs. 15,26,273, to Rs. 80,87,579 and Rs. 15,05,013. The heads and amount of decrease in revenue were: *Opium duty*, Rs. 2,43,187; and *license fees*, Rs. 2,252, due to a fall in

sales; *Duty and license fees on distillery spirit*, Rs. 13,306, due to a fall in distillery spirit, particularly in Thatôn, where the amount sold decreased from 14,190 to 8,969 gallons, owing to the high price which, it is feared, led to the sale of illicit spirit in the shops. The heads, amounts and reasons for increase in revenue were: *Licenses for sale of imported liquors*, Rs. 29,127, due to increase in licenses to Hotels, etc.; *Duty on locally-produced spirit excised at tariff rates*, Rs. 4,325, due to increase in issues from the distilleries at Toungoo, Moulmein and Mandalay; *Receipts in outstill areas*, Rs. 2,040; *Locally brewed beer*, Rs. 13,855, due to an increase from 173,781 to 288,055 gallons issued from the Mandalay Brewery mainly for regimental consumption; *Licenses for tari*, Rs. 5,905, and *other native fermented liquors* Rs. 48,116; *Fines, confiscations and miscellaneous*, Rs. 27,634. Under Expenditure, *rewards and contingencies* rose by Rs. 23,850, while establishment charges and refunds decreased.

There was a decrease of 1¼ lakhs in opium revenue in Rangoon, and considerable reductions in the Pegu Division (except the Pegu District which was the only district to rise more than Rs. 10,000), with minor reductions in the Irrawaddy Division. This fall in opium corresponded exactly to the rise in consumption of illicit cocaine, which was large in the Pegu Division including the Pegu District, and less in the Irrawaddy Division, decreasing in proportion to distance from Rangoon which is the focus of illicit distribution of the drug. In the Mandalay Division, revenue decreased owing to the return to the system by which the vendor imports his own opium paying duty Rs. 17 a seer. Suitable reductions were made in the price of excise opium to vendors, to compensate them for their shortened sales, and the average rate fell from Rs. 70·5 to Rs. 69·8 per seer. Increases in issue in Pakôkku, Myingyan and Pegu were due to increase in Chinese immigrants; in Akyab to increase of Chinese and Chittagonian coolies during the season, and in Mergui to increase of immigrants from China and Siam.

The year was more favourable to the licensed vendors who made a profit of Rs. 3,92,936, on an expenditure of Rs. 42,95,668 as compared with a profit of Rs. 3,53,671 on Rs. 44,94,534 last year.

Opium seizures fell from 124,047 to 118,658 tolas, but cocaine seizures rose from 389,636 to 939,685 grains. Offences under Excise and Opium Acts decreased evenly under all heads from 9,539 to 9,392; the percentage of conviction rose from 79·08 to 80·08. Rewards rose from Rs. 1,67,023 to Rs. 1,72,757, of which a little less than half was paid to informers.

Stamps.

203. Amendments were made by Acts VI and VII, of 1910, in the Stamp Act, where duties on certain commercial documents were increased, and in the Court-fees Act, where duty on probate, etc., of estates over Rs. 10,000 was enhanced, certain arms applications were freed from fees, and the recovery of the fees on applications connected with refunds of sums collected in error by Government was legalised. English-speaking Subdivisional Officers, also, were empowered to sanction refund of a deceased vendor's stock.

Receipts in lakhs under both Acts fell from 37·85 to 36·11, the rate of fall being greater for the Stamp Act in the year under report. The figures in lakhs for revenue under the Court-fees Act, for the year under report, and the two preceding years, are 22·34, 23·17 and 24·86, showing declines of 0·83 and 1·69 lakhs. Rangoon rose by Rs. 53,913, mainly owing to probate cases, and to the transfer of legal business from Pegu. Stamped copy sheets increased by Rs. 5,524, owing to the general increase in use of copies of evidence, and to the concession to copyists, by which copies are supplied to Government Prosecutors in copy sheets, instead of on plain paper. The figures for the Stamp Act for the three years are 11·77, 12·68 and 13·58 lakhs, showing decreases of 0·91 and of 0·90 lakh. Rangoon decreased by 48,219. "Impressed labels or special adhesive stamps" again decreased by Rs. 28,290, but the large rise in *hundis* continued. Refunds rose suddenly from Rs. 18,063 to Rs. 25,099.

Court-fee and Stamp collections are intimately connected with litigation and registration, and the reasons for decline may be sought under those heads, with a consideration of the paragraph on the Seasons, as the greater number of the districts of greatest decrease in Court-fee and Stamp revenue, during the year, were

CHAP. V.—REVENUE AND FINANCE.

seriously affected by the unusual character of the rains. Three has been a decline in litigation since 1905, when, owing to some unexplained crisis in the Indian money market, withdrawals through the Courts of Chetty money invested in agriculture reached a maximum. There has been less money for agricultural investment, which has been sounder and less speculative. During the last two years much capital, probably withdrawn from agriculture, has been invested in industry by company promotion, and the effect of this investment is most marked in Rangoon and Mandalay, and the districts they serve direct. Super-imposing the changes due to the heavy rainfall in the year under report, which was especially favourable to the central districts of the dry zone, but caused damage by flood in the Irrawaddy Division and along the eastern hills, and including local movements under irrigation and oil prospecting, the general and local declines are accounted for. Plague and proposals for land alienation legislation had a very minor and local influence.

Licensed vendors declined from 2,465 to 2,448, owing to the withdrawal of unneeded licenses in Akyab. Village headmen tried as stamp vendors proved a failure. Documents insufficiently stamped were dealt with by Courts in 973 cases, and by Collectors in 624, against 1,070 and 555, the previous year. Prosecutions fell from 102 to 90, the record lowest, and out of 138 persons, 108 were convicted. Probate and administration cases reported by Courts to Collectors fell from 524 to 467, and the amounts of deficient Court-fees required, which swelled to Rs. 9,114 last year, owing to Rs. 8,515 in Rangoon, sank to Rs. 1,089, the normal figure.

Assessed taxes.

204. Income-tax is not collected in Upper Burma outside the Town of Mandalay, and persons, other than public servants, and employés of Companies, which pay through Mandalay or Lower Burma, escape assessment.

The amount collected in the Province rose from Rs. 17,80,742 to Rs. 18,35,413. The value of securities held in the Province, which showed a slight decline in 1908 has been for the year under report and the two previous years 385·20, 330·68 and 292·66 lakhs, which shows an increase of 16½ per cent., or 54·52 lakhs, compared with an increase of 38·02 lakhs last year. Government and local securities both rose by 14·24 per cent. and 26·54 per cent., the rise in the latter being accounted for by the issue of debentures in loans of 1908 by the Rangoon Municipality.

Among the various classes of taxation, there was an increase of 26 in assessees, and of Rs. 4,847 in tax realised, under salaries paid by local authorities, due to the inclusion, for the first time, of District Cess employés. Tax on salaries paid by Companies, and private employers, rose from 2·28 lakhs to 2·65, assessees rising from 3,952 to 4,507, much of the rise being due to a new direction dealing with the salaries of employés of companies resident in Upper Burma. Companies taxed increased by one, but the increase (Rs. 33,269) in tax collected was disproportionately large; Rs. 8,670 was increase of tax on the Burma Railways Company. Private assessees, and the amount of assessment, in lakhs, for the year under report, and the two previous years, were 12,231, 11,977 and 11,625, and 7·76, 8·14 and 8·39 lakhs, showing increases of 254 and 352 in the number of assessees but decreases of 0·38 and 0·25 lakh in assessment. The decreases in assessment are due to Rangoon, Tharrawaddy, Toungoo, Thatôn, Amherst, Pegu, Ma-ubin and Henzada, and all these districts, except the last three, show large decreases, totalling 247, in the number of assessees. In the other districts, the number of assessees increased out of all proportion to the increase of assessment. The reasons assigned for this curious and possibly unsatisfactory decline are, depression of trade; restriction and winding up of business by Chetties; and losses from speculation in paddy. The increase in the number of assessees indicates that the smaller men into whose hands money-lending is passing, and the classes rising in prosperity are not escaping assessment, and shows improvement in the work of collection. Expenditure on collection rose from 2·12 to 2·23 per cent. The tax was collected without difficulty especially, in Rangoon where warrants issued fell from 151 to 51. No change was made in the method of assessment, or the agency employed in the administration of the Act.

Forests.

205. The Forest reports deal with the agricultural year, and the figures taken from them, and given below, differ slightly from those of the Finance Department.

Forest Revenue rose from Rs. 91,25,131 to Rs. 91,45,466. Expenditure fell from Rs. 37,24,265 to Rs. 36,80,541.

There was a gross increase of Rs. 2,94,154 under all heads of Revenue except *Timber and other produce removed by Government agency*, which fell by Rs. 2,73,819, owing to the depletion of stock in Rangoon Depôt last year, and to the new policy involving the transfer of forests from Government agency to purchase contractors. The heads and amounts of increase were: timber and other produce removed by consumers and purchasers, Rs 2,08,839, due to the transfer of forests to contractors mentioned above; firewood and charcoal, Rs. 13,208; bamboos and canes, Rs. 17,225; grazing and fodder, Rs. 910; other minor produce, Rs. 17,564; confiscated drift and waifwood, Rs. 11,976; duty on foreign timber and other produce, Rs. 6,008; and miscellaneous, Rs. 18,424.

There was a gross decrease of Rs. 2,34,536 in expenditure, partly counterbalanced by a gross increase of Rs. 1,90,803. The heads and amounts of decrease were: timber and other produce removed by Government agency, Rs. 2,23,449; drift and waifwood and confiscated forest produce, Rs. 7,026; revenue from forests not managed by Government, Rs. 167; roads and buildings, Rs. 3,612; and miscellaneous, Rs. 282. The heads and amounts of increase were: timber and other produce removed by consumers and purchasers, Rs. 17,717; livestock, stores, tools and plant, Rs. 1,929; organization, improvement and extension of forests, Rs. 43,743; establishment charges, Rs. 1,27,414. The variations are chiefly due to the curtailment of departmental timber operations. Even allowing for the heavy fall, the amount spent on extraction of timber for sale by Government agency, Rs. 7,19,118, is high, compared with the expenditure in organization and improvement of forests, Rs. 5,78,219, and roads and buildings, Rs. 2,71,295. But the change from departmental to contract business has already resulted in a gratifying increase of revenue by Rs. 42,326 and the increases in expenditure on organization of forests and roads and buildings afford some indication of the relief which the measure has afforded to the Department.

The surplus rose from Rs. 54,00,867 to Rs. 54,64,925, but is below the average of the previous five years, Rs. 57,27,578. The value of forest produce of which free grants were made, not including produce removed under settlement rights of extraction, rose from Rs. 1,39,118 to Rs. 1,85,452, and included 3,361 tons of teak and 12,870 tons of other reserved woods. The value of stock in hand rose from Rs. 7,32,829 to Rs. 8,11,255 owing to the replacement of teak in the Rangoon Depôt.

(*b*) *REVENUE AND FINANCE OTHER THAN IMPERIAL.*

Provincial Revenues.

Provincial Receipts.

206. Omitting the Imperial grant of Rs. 1,08,65,008 analysed in paragraph 188, the Provincial Receipts were 359·91 lakhs, compared to 359·07 last year and 343·40 lakhs in the previous year. The Provincial halves of increases in *Land* and *Forest* revenues were, Rs. 4,20,350, and Rs. 57,221. Other heads, amounts and reasons of increase were: *Ports and Pilotage*, Rs. 35,080, owing to increase in the shipping which visited the Ports; *Education*, Rs. 36,600, owing to the transfer of certain Municipal Schools to Government, the opening of new schools, and the increase of the school-going population; *Irrigation*, Minor works and Navigation, Rs. 76,638, owing to favourable rainfall; petty items of increase amounted to Rs. 24,924. The Provincial halves of decreases in *Stamps* and *Excise* were Rs. 81,950 and Rs. 34,838. Other heads, amounts and reasons of decrease were: *Police*, Rs. 21,276, due to a fall in fines for gambling; *Civil Works*, Rs. 3,88,412, due to the sale of the Dalla Dockyard Buildings to the Irrawaddy Flotilla Company; *Miscellaneous*, Rs. 62,114, due to an increase in refunds, and to the high figure last year resulting from the repayment of a loan to the Tharrawaddy District Cess Fund; petty items of decrease amounted to Rs. 36,020.

CHAP. V.—REVENUE AND FINANCE. Provincial Expenditure.

207. The Provincial Expenditure for the year under report and the two previous years was 443·24, 472·05 and 471·96 lakhs. There was a net decrease of Rs. 29,00,322. The heads, amounts and principal reasons of decrease were: *Land Revenue*, Rs. 1,94,286, on the termination of surveys by the Survey of India; *Jails*, Rs. 51,720, a saving on food in Central Jails; *Police*, Rs. 1,42,764, a saving on food, and the abnormal figure last year owing to the bonus given; *Ports and Pilotage*, Rs. 29,282, a saving by less purchase of Marine Stores which was partly counterbalanced by the payment of subsidies to Steam Boat Companies; *Minor Works and Navigation*, Rs. 3,35,655, less spent on the Pegu-Sittang Canal, and on the Irrawaddy Embankments; *Civil Works*, Rs. 24,23,987, the greatly reduced grant, and the abnormal figure in 1908-09 owing to the payment of ten lakhs, Imperial contribution to the Port Trust towards the River Training Scheme; petty decreases under other heads amounted to Rs. 53,466. The heads, amounts and principal reasons of increase were: *General Administration*, Rs. 39,034, the payment of a Civilian Officer as Private Secretary to His Honour the Lieutenant-Governor; *Courts of Law*, Rs. 1,45,287, the cost of Additional Judges in the Chief Court and in the Court of the Judicial Commissioner, Upper Burma, the further re-organization of the Provincial Judicial Service, and an increase under Supplies and Services; *Scientific and other Minor Departments*, Rs. 59,685, Veterinary and stallion charges; *Superannuation*, Rs. 23,192, new pensions; *Miscellaneous*, Rs. 35,199, contributions to the Telegraph Department to meet loss in guaranteed lines; petty decreases under other heads amounted to Rs. 28,441.

Local Funds.

Description of Funds.

208. There are District Cess Funds in twenty districts of Lower Burma, maintained chiefly by Provincial rates, a cess of 10 per cent. on the ordinary land revenue. There are District Funds in sixteen districts of Upper Burma, where there is no ordinary land revenue, maintained chiefly by allotment of certain collections within the district. There are also Town Funds in sixteen towns (*notified areas*), constituted under the Lower Burma Towns Act and Upper Burma Towns Regulation; seven Cantonment Funds; The Rangoon Port Trust Fund; Port Funds in six minor Ports; four Pilot Funds; the Burma Steam Boiler Inspection Fund; the Educational Syndicate Fund; and the Rangoon Town Police Reward Fund. These funds are all dealt with in the following paragraphs.

District Cess Funds.

209. The aggregate opening balance of the twenty District Cess Funds in Lower Burma was Rs. 22,19,253 on the 1st April 1909. Receipts during the year were Rs. 28,44,129; Expenditure was Rs. 29,84,607; and the closing balance was Rs. 20,78,775, less by Rs. 1,40,478 than the opening balance. Receipts decreased by Rs. 39,371. The heads and amounts of decrease were: *Provincial rates*, Rs. 30,889, due to a decrease in ordinary land revenue; *Education*, Rs. 17,685, due to a decline in Provincial grants; *Civil works by Civil Officers*, Rs. 3,542; *Police*, Rs. 2,483; and two petty heads show a decrease of Rs. 155. The heads and amounts of increase in Receipts were: *Medical*, Rs. 14,651, due to an increase in Municipal contributions to plague, mainly in the Tharrawaddy and Myaungmya Districts; *Land Revenue*, Rs. 516; three petty heads show an increase of Rs. 216. Expenditure increased by Rs. 10,329. The heads and amounts of increase were: *Education*, Rs. 39,033, due to larger grants in-aid; *Civil works by Civil Officers*, Rs. 34,008, and by *Public Works Officers* Rs. 16,279, items which fluctuate according to funds available; *Scientific and Minor Departments*, Rs. 13,059, due to veterinary charges; *Ports and Pilotage*, Rs. 10,417, due to purchase of a motor launch for the Local Funds Overseers in the Pyapôn District; three minor heads, Rs. 1,605. The heads and amounts of decrease in Expenditure were: *Medical*, Rs. 55,387, due to decrease in plague expenditure, less an increase for vaccination; *Provincial rates*, Rs. 29,102, due to a decrease in commission on collections; *Miscellaneous*, Rs. 12,496, due to less payments on account of contributions to Municipal and Local Funds; four heads decreased by Rs. 9,590.

The Prome, Tavoy, Tharrawaddy, Amherst and Toungoo District Cess Funds overdrew the balances at their credit during the year, and transfer of funds was sanctioned to cover their overdrafts. But they regained solvency before the end of the year. The Municipality of Syriam was constituted during the year, and the necessary adjustments with District Cess Funds will be made in the accounts for the year 1910-11.

District Funds.

210. The aggregate opening balance of the sixteen District Funds in Upper Burma was Rs. 4,35,482 on the 1st of April 1909; Receipts during the year were Rs. 6,68,722; Expenditure was Rs. 6,76,125, and the closing balance was Rs. 4,28,078, or Rs. 7,404 less than the opening balance.

Receipts increased by Rs. 8,236. The heads and amounts of increase were: *Civil Works by Civil Officers*, Rs. 14,498, due to larger contributions from the Public Works Department, and to a special credit of Rs. 7,951 in the Katha District, less a fall in ferry receipts; there was also a minor increase of Rs. 7. The heads and amounts of decrease in Receipts were: *Police*, Rs. 8,204, due to a decrease in Receipts from slaughter-house licenses chiefly in the Shwebo, Sagaing, Kyauksè and Yamèthin Districts; *Miscellaneous*, Rs. 14,511, due to decrease in bazaar stall rents and bazaar daily collections, chiefly in the Mandalay, Ruby Mines, Myitkyina, Lower Chindwin, Magwe, Kyauksè, and Yamèthin Districts, less an increase in the Sagaing District; there was also a small decrease of Rs. 26 under *Scientific and other Minor Departments*.

Expenditure increased by Rs. 70,101. The heads and amounts of increase were: *Civil Works by Civil Officers*, Rs. 43,143 and by *Public Works Officers*, Rs. 14,393; *Miscellaneous*, Rs. 8,948; *Police*, Rs. 1,398; *Minor Works by Public Works Officers*, Rs. 1,400; small increases under four heads amounted to Rs. 1,199; the only decrease in expenditure was Rs. 380 under the head *Medical*.

Town Funds.

211. The opening aggregate balance of the sixteen Town Funds was Rs. 1,99,437, and exceeded the closing balance of last year by Rs. 49 owing to a book adjustment; Receipts were Rs. 4,74,163; Expenditure was Rs. 4,89,270; and the closing balance was Rs. 1,84,330. The Receipts rose by Rs. 12,690; and Expenditure by Rs. 50,534. The decrease in closing balance was due to excess expenditure over income in the towns of Zigôn, Kawkareik, Danubyu, Minhla, Nyaunglebin, Maymyo, Insein, Yenangyaung and Loilem. In Minhla and Yenangyaung the closing balances fell from Rs. 3,551 and Rs. 10,462 to Rs. 681 and Rs. 81, and strict watch over their expenditure is necessary.

Cantonment Funds.

212. The opening balance of the aggregate of the seven Cantonment Funds was Rs. 1,14,557, differing by Rs. 225 from the closing balance of last year on account of book adjustment; Receipts were Rs. 2,18,129; Expenditure was Rs. 2,50,406; and the year closed with a balance of Rs. 82,280. Excluding debt heads, the income was Rs. 2,17,520 and expenditure Rs. 2,49,424, against Rs. 1,73,525 and Rs. 1,92,765 last year, so that the net income showed an increase of Rs. 43,995 and the net expenditure an increase of Rs. 56,659. The expenditure of the funds at Maymyo, Rangoon, Bhamo, Thayetmyo and Meiktila exceeded their income, and the funds at the last three places need watching to prevent insolvency. The incomes of Rangoon, Mandalay, Shwebo and Bhamo increased by increase in collections; the income of Meiktila showed an increase, and the incomes of Thayetmyo and Maymyo showed decreases, on account of variations in the grants-in-aid from the General Officer Commanding the Burma Division. The increases of expenditure were mainly due to plague expenses in Mandalay and Maymyo; to cost of establishment in Rangoon, Meiktila and Thayetmyo, and to refunds and miscellaneous in Bhamo. The Shwebo Fund showed a slight decrease in expenditure.

Port and Pilot Funds.

213. *Rangoon Port Trust.*—The ordinary account contained an opening balance of Rs. 9,41,913; Receipts were Rs. 40,01,412; Expenditure was Rs. 42,52,955; and the closing balance fell to Rs. 6,90,370. The capital account contained an opening balance of Rs. 28,33,406; Receipts fell from Rs. 92,39,891 to Rs. 69,80,000; Expenditure rose from Rs. 67,45,433 to Rs. 80,06,110; and the closing balance was Rs. 16,07,296. Receipts fell by Rs. 5,06,855, owing to a fall in recoveries of miscellaneous advances. Expenditure rose by Rs. 3,20,532 owing to an increase in charges for interest and sinking fund. The amount of loans outstanding at the end of the year increased from 207·12 lakhs to

CHAP. V—REVENUE AND FINANCE.

239·12 lakhs. Expenditure needs watching as it shows a tendency to increase out of proportion to the probable expansion of revenue. Further details will be found in paragraph 107 of this report.

Minor Port Funds.—The aggregate opening balance of the six Minor Port Funds was Rs. 3,43,360; Receipts were Rs. 6,82,558; Expenditure was Rs. 7,37,296; and the closing balance fell to Rs. 2,88,623. Of the loan of Rs. 12,000 borrowed by the Bassein Port Fund from Government in March 1903, at 4 per cent. per annum, Rs. 4,101-7-0 was outstanding at the end of the year. The balances of loans to the Moulmein and Tavoy Port Funds left outstanding were Rs. 91,759 and Rs. 6,416. The Bassein, Moulmein and Tavoy Port Funds obtained additional loans of Rs. 50,000, Rs. 1,00,000 and Rs. 5,000 at 4 per cent. from Government during the year. Further details will be found in paragraph 109 of this report.

Pilot Funds.—The aggregate opening balance of the four Pilot Funds was Rs. 90,467; Receipts were Rs. 4,53,021; Expenditure was Rs. 4,39,861; the closing balance rose to Rs. 1,03,607.

Pilotage receipts are credited to these funds, from which the earnings of pilots, the cost of maintenance of pilot vessels, and other expenses are disbursed. Further details will be found in paragraphs 108 and 109 of this report.

Micellaneous Funds.

214. *Steam Boiler Inspection Fund.*—The opening balance was corrected to Rs. 47,165 by a book adjustment; Receipts rose from Rs. 51,550 to Rs. 54,188; Expenditure was Rs. 84,536; and the closing balance was Rs. 16,817. The receipts consist of fees for the inspection of Boilers and Prime-movers and of Examination fees. The net expenditure consists of the salaries of Inspectors, allowance to the Superintending Engineer, fees to the Commissioners, Examiners, etc., and fell from Rs. 35,032 to Rs. 32,536; the balance Rs. 52,500 of the gross expenditure was invested during the year.

Educational Syndicate Fund.—The opening balance was Rs. 13,833. Receipts from Examination fees and the Government contribution of Rs. 20,500 amounted to Rs. 52,131. Expenditure on salaries of the Syndicate Establishment, etc., amounted to Rs. 44,622. The closing balance was Rs. 21,342.

Rangoon Police Reward Fund.—The opening balance was Rs 87 : Receipts, consisting of fines on policemen and undisbursed rewards fell from Rs. 1,349 to Rs. 896. Expenditure on rewards fell from Rs. 1,470 to Rs. 937. The closing balance was Rs. 43.

Road and Education Cesses.

215. No special cesses are levied in Burma for the construction and maintenance of roads and the provision of education, but the 10 per cent. cess levied on Land Revenue in Lower Burma is partly devoted to education and local public works.

Municipal Revenues.

216. Including Rangoon, the aggregate opening balance of Municipalities was Rs. 27,38,126; Income was Rs. 77,00,543; Expenditure Rs. 79,82,818; and the closing balance fell to Rs. 24,20,389; excluding extraordinary and debt credits and charges, income and expenditure were, Rs. 71,01,245 and Rs. 67,03,472; the share of Rangoon was roughly half. Rangoon took no loans, but repaid Rs. 57,500; the loans taken and repaid by other Municipalities were Rs. 85,000 and Rs. 37,977, against Rs. 79,500 and Rs. 40,302, last year. Interest paid on debt rose from Rs. 6,50,191 to Rs. 6,76,745; the rise was confined to Rangoon. Grants from Government, Local Funds, and other sources fell from Rs. 5,98,383 to Rs. 4,77,044; of this Rangoon received from Government Rs. 46,800 or Rs. 40,000, more than last year. The heavy decrease in other Municipalities is shared by grants for Medical purposes—from Government and grants from Local Funds. The total liabilities of Municipalities at the close of year amounted to Rs. 1,93,53,184;

Rangoon was responsible for over a crore and a half of this. But investments by various minor Municipalities amount to Rs. 2,74,900. Details as to Rangoon and other Municipalities will be found in paragraphs 94 to 97, 99 to 102 of this report.

Other Funds.

217. There is only one Trust Fund, that of the Official Assignee. There are four Educational Funds: the Jardine, Maung Ohn Ghine, Renaung and Copleston funds. These five funds do not bank with Government and their transactions do not appear in the Government accounts. The Boiler Inspection Fund was converted into a local fund, from the 1st April 1908.

Paper Currency.

218. The number of notes in circulation on the 31st March 1910, was 1,319,698, value 359·44 lakhs, against 909,497 notes, value 296·81 lakhs last year and 652,056 notes, value 296·81 lakhs in the previous year. Ten-rupee notes increased from 676,998 to 1,044,368 and one hundred-rupee notes from 183,448 to 212,436; the circulation of notes of Rs. 20 and Rs. 30 declined; five-rupee notes rose from 22,871 to 41,328 pieces. The increase in circulation of one hundred-rupee notes would have been more marked, but for the payment of 32,829 notes of this denomination into the Currency Office from the Government account at the Bank of Bengal during March 1910; and the decrease in notes of Rs. 500 and of higher values is attributed to a lessening of the number needed by the Bank of Bengal in payment of telegraphic transfers. Issues during the year decreased in value by 17·04 lakhs; but Receipts decreased by 42·78 lakhs Issues and receipts of five-rupee and ten-rupee notes rose heavily; but issues and receipts of other denominations declined. The twenty-rupee note was abolished in February 1910. The reserve at the end of the year was 497·43 lakhs in silver, and 52·74 lakhs in gold.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

REFERENCES—

Report on the Sanitary Administration of Burma for the year 1909.
Notes and Statistics on Hospitals and Dispensaries in Burma for the year 1909.
Report on the working of the Government Medical School, Rangoon, for the year 1909.
Note on the Lunatic Asylums in Burma for the year 1909.
Notes and Statistics on Vaccination in Burma for the year 1909-10.
Statistics of British India, Part V.

Births and Deaths.

Number of births and deaths.

219. *Area.*—The area under registration has been slightly restricted in some districts and expanded in others, with the result that 57,773 souls have been added to the population under registration which now amounts to 8,543,753, of which 5,561,944 are in Lower Burma and 2,981,809 are in the Upper Province.

The districts in which the population under registration has decreased are Akyab, Mergui and Sagaing, and those in which it has increased are Mandalay, Pakôkku, Minbu, Meiktila, Yamèthin, Kyauksè and Myingyan.

In view of the doubts as to the accuracy of Vital Statistics it is of interest that out of 116,227 entries checked in Lower Burma, and 60,748 checked in Upper Burma—these entries forming about one-third of the total for the Province—the ratio of error per 1,000 entries was 3·02 for Lower Burma, and 13·12 for Upper Burma.

Births.—Births increased by 11,180. The birth-rate shows a general increase under all heads except urban births which are slightly less in Lower Burma and fell considerably in Upper Burma.

Statistics of birth-rate are given in the following form:—

Particulars.	Male.		Female.		Total.		Number of Males per 100 Females.
	1909.	1908.	1909.	1908.	1909.	1908.	
1	2	3	4	5	6	7	
Provincial ...	18·50	17·97	17·42	16·87	35·91	34·84	106
Rural ...	19·12	18·44	17·99	17·29	37·11	35·74	106
Urban ...	13·96	14·55	13·25	13·83	27·21	28·38	105
Lower Burma ...	18·20	17·60	17·07	16·46	35·27	34·06	107
Rural ...	18·88	18·19	17·71	17·00	36·59	35·20	107
Urban ...	13·52	13·51	12·66	12·77	26·18	26·28	107
Upper Burma ...	19·04	18·68	18·06	17·64	37·10	36·32	105
Rural ...	19·55	18·92	18·50	17·84	38·05	36·75	106
Urban ...	14·90	16·79	14·51	16·12	29·41	32·91	103

Deaths.—The death-rate again shows an increase for the Province being 30·18 against 28·22 and 26·60 in the two previous years. But the figures show that while the death-rate in Lower Burma was stationary or decreased, the Provincial rise is due to a general rise in deaths in Upper Burma, mainly in the urban areas. There is an increase in Upper Burma of 6·29 per mille with a decrease in Lower Burma of 0·36.

The increased mortality in Upper Burma was accounted for by Cholera (1·58), Fevers (1·24), Plague (0·66), Dysentery and Diarrhœa (0·40) and other causes (2·65).

Decrease in Lower Burma was due to Cholera (0·95), Plague (0·32), Fevers (0·19), Diarrhœa and Dysentery (0·12), less slight increases in small-pox (0·02), Respiratory diseases (0·07), Injuries (0·02) and other causes (1·12).

The form below gives statistics of death-rate :—

Particulars.	Rural.		Urban.		Total.	
	1909.	1908.	1909.	1908.	1909.	1908.
1	2	3	4	5	6	7
Provincial ...	28·50	26·38	42·38	41·37	30·18	28·22
Lower Burma ...	25·92	25·94	39·97	42·57	27·70	28·06
Upper Burma ...	33·22	27·21	47·55	38·80	34·81	28·52

Infantile Mortality.—The mortality of infants under one year of age estimated on the registered births is shown below. The figures show a decided and even increase of infant mortality throughout the Province, the increase being 13·73 per mille above 1908 and over 24 per mille above 1907.

Particulars.	Rural.		Urban.		Total.	
	1909.	1908.	1909.	1908.	1909.	1908.
1	2	3	4	5	6	7
Provincial ...	212·56	200·00	322·94	289·39	222·69	208·96
Lower Burma ...	207·41	195·11	283·13	260·83	214·54	201·58
Upper Burma ...	221·61	208·89	398·76	338·52	237·15	222·17

220. *Diseases.*—The total of 257,862 deaths that occurred in the Province was distributed as follows :— Causes of death.

Cholera	11,389
Small-pox	1,011
Plague	6,946
Fevers	80,759
Dysentery and diarrhœa	12,397
Respiratory diseases	7,779
Suicide	151
Wounding and accident	1,471
Snake bites and wild beasts	1,520
All other causes	134,439

Of these causes deaths from Plague, Fevers, Dysentery and Diarrhœa and Respiratory Diseases showed noticeable increases as compared with the returns of the previous year.

Cholera.—The districts in the Irrawaddy Division in Lower Burma, and Magwe and Meiktila Divisions, and Mandalay District in Upper Burma suffered heavily from Cholera during the year.

In rural areas of Lower Burma the total number of deaths recorded from Cholera was 3,006, a decrease of 4,314, and in the towns 1,035, a decrease of 981 on the figures recorded for 1908. In Upper Burma the rural deaths were 6,080, against 2,103 in 1908, an increase of 3,977. Deaths in the towns amounted to 1,268, an increase of 796.

The epidemic of Cholera in Upper Burma during the year under report was directly connected with the epidemic in Lower Burma in 1908. Infection spread in 1908 from the coast districts through Toungoo into the Yamèthin District, principally by the agency of the boating population on the Pegu and Sittang rivers and their affluents. From Toungoo it was conveyed mainly by railway passengers into the districts further north.

Infantile Mortality.—An endeavour was made during the year to account for the high average of infant mortality, with special reference to the variations which exist between Thayetmyo on one side of the river and Allanmyo, which is opposite to it, on the other side. The Civil Surgeon found that there was no reason to set the mortality down to improper care, and found that there was a marked absence of ordinary infantile disease, and suggested that the cause was probably syphilis connected with the history of Thayetmyo as a Cantonment.

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES. Plague.

221. The increase in the number of deaths from plague in the Province during 1909 as compared with 1908 was 194, the figures for the three years 1907, 1908, and 1909 being 9,429, 6,752 and 6,946, respectively.

In Lower Burma a total decrease in the number of plague deaths of 1,804 was recorded.

In rural areas the decrease was most marked in the Henzada District (8 deaths against 101 in 1908) and in the Ma-ubin District (*nil* against 39).

In the towns only Gyobingauk, Kyônpyaw and Thayetmyo showed any considerable increase of plague mortality, the excess deaths over the totals for 1908 being respectively, 46, 29 and 24. Kyônpyaw, Shwegyin and Thayetmyo were infected for the first time in the year under report.

Shwedaung, Yandoon, Danubyu and Zalun towns ceased to be centres of indigenous infection.

Upper Burma.—A severe outbreak occurred at Mandalay where there were 2,366 deaths from plague, an increase of 1,164 on the returns for 1908.

Maymyo, which had only two deaths in 1908, suffered an epidemic in 1909, commencing in July, and causing 121 deaths.

Altogether there were 3,581 deaths recorded from plague in the towns and rural areas of Upper Burma in 1909 against 1,583 in 1908, an increase of 1,998, of which the excess in towns (exclusive of Katha and Bhamo) was 1,544. Plague made serious progress in the Upper Burma districts, while showing a marked decrease in Lower Burma.

Destruction of Rats.—The number of rats reported to have been destroyed by human agency during 1909 was 1,711,000. Of these 1,474,144 were destroyed in towns, including 1,097,291 in Rangoon alone, and 236,856 in rural areas. The decrease in rats destroyed was 1,421,902. There was an immense falling off in the rural areas, which may be accounted for by the change of system, the former general practice of paying rewards having ceased, and villagers not having learnt yet to combine for rat destruction voluntarily.

Systematic Destruction.—The year was rendered notable by the first attempt to deal with plague on the scientific principle, that when it has become endemic it can be best controlled by systematically keeping the rat population below a certain limit, and by the adoption of a system based on this principle under the control of Captain Brayne, I.M.S., which included the condemnation of insanitary buildings, and the destruction of refuse, with the systematic extermination of the rat population in the towns placed under treatment. The town of Prome, in which plague has appeared regularly for several years, was dealt with very thoroughly, block by block, without turning aside to minister to the demands of persons who asked for instant assistance in the disinfection of their premises, sections of the Municipal Act which had become a dead letter being strictly enforced. The experience gained in this town demonstrated the value of dealing with infected areas as a whole, instead of dealing haphazard with houses as they become infected. Zigôn, dealt with early under the same method and supervision, escaped an outbreak entirely, and it is considered that the outbreaks in the other chief centres of population on the Prome Railway would have been modified or prevented, if it had been possible to carry through the same measures before the plague season set in. A most satisfactory feature of this new departure was, that although the most drastic measures of removal of insanitary and infected buildings were rigorously adopted, owing to the tact of the officers concerned, and the excellent supervision of the staffs employed, the populace co-operated intelligently and without opposition in the measures adopted. The staffs employed are well reported on, and the only thing which prevents a larger application of these measures is the paucity of trained supervising officers and menials, which is at bottom a matter of funds available and time.

Prophylactic Inoculation.—The total number of operations performed was 31,767, against 51,753 in 1908. The falling off was mainly in Lower Burma.

The value of prophylactic inoculation with Haffkine's fluid was clearly demonstrated at Mônywa and Sagaing. In the former place it appears to have prevented the epidemic from assuming alarming proportions, since the mortality of rats from plague was enormous, and distributed throughout the whole area of

the town. Both at Sagaing and Mônywa there were seventeen attacks of plague in previously inoculated persons, with only four deaths in each town, most of which seemed to be due to infection before inoculation. In the rest of the protected persons attacked, the disease assumed a mild form. But the majority of the inoculated persons who contracted plague applied at once for treatment, and treatment with suprarenal extract has been very successful even in persons who were not protected by inoculation.

Fevers.

222. There was a decrease of 1,137 deaths from fevers in Lower Burma, and an increase of 4,235 in Upper Burma. The Provincial death-rate was 9·45, that for males being 10·21, and for females 8·69.

Quinine Prophylaxis.—Thirteen thousand one hundred and sixty-seven packets containing in all 1,053,360 doses (each 7 grains) of sulphate of quinine were sold in the districts during the year 1909, through the agency of the District Officers and Vaccination Staff.

The returns furnished by the Postmaster-General, Burma, of quinine sold through the Agency of Postmasters, shows that quinine was sold from 370 Post Offices against 379 in 1908. The total sales were 298,012 doses, as compared with 253,428 in 1908, showing an increase of 44,584 doses.

Towards the close of the year orders were issued for the supply of quinine to all distributing agencies in the form of tablets containing 5 grains and 1 grain, respectively.

A Hospital Assistant has been placed on special duty to supervise the manufacture of quinine in the Rangoon Central jail, and steps are being taken to provide improved machinery, capable of turning out sufficient tablets to meet the increasing demands.

The manufacture of quinine in powders has ceased. The change from powders to tablets (salons) is so recent that it is impossible to say whether the change has led to an increased consumption, but so far no demand has yet been established in several of the most malarious districts.

Emigration and Immigration.

223. The numbers of immigrants and emigrants reported as passing through the ports of Burma are 302,287 and 301,930 as against 319,271 and 301,059 last year. The unchecked figures for each port for the year are Rangoon 259,462—253,349; Akyab 40,757—47,158; Mergui 1,662—1,026; Moulmein 406—397. Last year's checked figures for the two chief ports were Rangoon 252,075—227,568; Akyab 34,863—43,866. The bulk of those passing through Rangoon are Indian coolies who come over for work in the season, and return; and coolies for the Rangoon rice-mills and refineries. The number of children is increasing. The increase in Akyab is due to greater facilities for immigrant coolies from Chittagong for the season in Arakan, afforded by the British India Steam Navigation Company which has increased its boats on this run. Henzada and Tharrawaddy report an increase in Chinese traders who settle, and Tavoy reports an influx of Chinese coolies for work on mining concessions.

Medical Relief.

Hospitals and Dispensaries.

224. Nineteen new institutions were opened during the year, bringing the number of Hospitals and Dispensaries to 252.

Number.	Locality.	Maintained by
7	Upper Burma	Provincial Funds.
4	Lower Burma	Railway Department.
6	Do.	District Cess Funds.
2	Upper Burma	Public Works Department Dispensaries.

Attendance and treatment.

225. This year the number treated includes patients treated by medical subordinates when on escort duty in the Hill Tracts.

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

The popularity of the Hospitals among out-patients, especially among better class Burmese women has much increased, owing to efforts to secure greater privacy, and better accommodation.

The chief diseases treated were malarial fevers, ulcers, other skin diseases, worms and other diseases of the digestive system. Small-pox admissions increased from 304 cases to 342, while Cholera decreased from 1,082 to 905 cases

The provision of necessary facilities for surgical cases continued. New operation rooms are almost completed at Akyab, Henzada and Mônywa, and the rooms at the last two stations have been supplied with operation room windows and Mansfield Gas plant. The necessity of the strict observance of all details for procuring truly aseptic conditions before and after operation was pointed out to all Medical officers. The rise in operations from 24,536 in 1905 to 37,670 in 1909 shows the necessity for modern equipment and encourages Medical officers to provide it.

Statistics of attendance for treatment.

Particulars.	1909.	1908.	Increase.
	Patients.	Patients.	Patients.
Civil Hospitals and Dispensaries { Indoor ...	53,488	50,274	3,214
Civil Hospitals and Dispensaries { Outdoor ...	1,188,015	1,085,744	102,271
Military Police	107,927	106,255	1,672
Railway Hospitals and Dispensaries	56,288	58,201	—1,913
Canal and other Public Works Department Dispensaries	14,264	8,721	5,543
Private non-aided Dispensaries	491	11,734	—11,243
Total ...	1,420,473	1,320,929	99,544
Percentage of Burmese to other nationalities ...	51·17	50·92	0·25

Statistics of Treatment.

Particulars.		1909.	1908.	Increase.
In-patients ... {	Beds available	4,439	4,319	120
	Percentage cured	75·14	71·48	3·66
Out-patients ... {	Average daily attendance	6,512	5,883	629
	Percentage who attended personally ...	84·70	85·19	—0·49
Surgical operations {	Number performed	37,670	31,076	6,594
	Number of deaths	243	214	29
	Percentage of deaths to operations ...	0·65	0·69	—0·4
Percentage of mortality after treatment		7·31	7·79	—0·48

Expenditure.

226. The closing balance, excluding a sum of Rs. 16,250 held under investment, rose from Rs. 52,594 to Rs. 56,766. The fall in about seven lakhs in expenditure for the year is due to a restriction of nearly eight lakhs on hospital buildings and repairs.

The expenditure on the New General Hospital buildings in Rangoon was less by about six lakhs than in the previous year. The increase in "Salaries" is mainly due to the opening of the New General Hospital, and to the entertainment of the staff sanctioned for it. Other figures are shewn below.

Particulars.	1909.	1908.
	Rs.	Rs.
Total expenditure	13,39,188	20,64,964
Hospital buildings and repairs	2,62,332	10,34,083
Government contributions	6,40,840	14,11,648
Percentage of Government contributions to total	47·85	68·36
Contributions from Local Funds and Municipalities	5,90,194	5,65,565
Percentage of contributions from Local Funds and Municipalities to total.	44·07	27·39
Subscriptions and donations	45,612	46,829

227. The cadre of the Indian Medical Service was increased by two; two other appointments were opened to private practitioners on special terms; and four appointments for Civil Assistant Surgeons were added. CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES. Staff and training.

The cadre of Hospital Assistants was 32 short of strength this year. To make this service more efficient and popular the Government of India have agreed to the principle of a provincial scale of pay, and proposals are now before the Government of India.

A scheme for the training of ten Burmese and Karen women annually, in nursing, at the New General Hospital has received the approval of the Local Government. And further proposals to improve the nursing arrangements generally in Hospitals in Burma have been approved by Government. Men of the Compounder class are now to be trained for the nursing staff, and to be designated as "Ward Assistants."

Nine Midwives have been passed out of the Dufferin Hospital under the "Results System Midwives' Scheme," and ten more students are under training.

228. The Burma Government Medical School is making some progress. The number of students during the year rose to 28 (23 with Government stipends and 5 private students) from 13 in the previous year. All the students in the third year course passed, and were promoted to the fourth year. But of ten students from the first and second year course who sat, four failed and were removed from the School, and those who passed are reported to be below the average. Receipts amounted to Rs. 70-6-0 and expenditure was Rs. 20,414-8-3. Government Medical School.

229. Difficulty was found in providing accommodation at the Rangoon Lunatic Asylum, and the accommodation was again increased. There was a slight rise in mortality. The average cost of maintaining a lunatic in Rangoon, excluding charges under superintendence, rose considerably, while there was a fall in cost in Minbu. Lunatic Asylums.

The figures are given below:—

Particulars.	Rangoon.		Minbu.		Total.	
	1909.	1908.	1909.	1908.	1909.	1908.
1. Strength at end of year ...	492	476	131	111	623	587
2. Daily average	480·34	475·79	124·53	90·35	604·87	566·14
3. Available accommodation at end of year.	484	448	141	107	625	555
4. Mortality	9·37	8·62	3·21	1·11	8·10	7·42
5. Expenditure	Rs. 91,863	78,386	15,505	12,076	1,07,368	90,462
6. Cost of maintenance per lunatic excluding superintendence.	Rs. 160	135	114	121	150	133

Sanitation.

230. The expenditure necessary to combat plague has crippled many districts and towns, and prevented the possibility of any considerable allotment of funds for sanitary improvement. This is regrettable, as general plague measures cannot ensure permanent benefit without trained Sanitary Inspectors and an adequate conservancy staff in towns, and some provision for rural areas. It is regretted that shortage of funds has rendered it impossible to progress with the scheme for a class of Sanitary Inspectors recruited from the Burmese themselves, as the efficiency and intelligence of Burmese officials in supervising sanitary measures have been noted, and it is believed that properly trained Burmese Inspectors would be a valuable asset to the Province. Though sanitary expenditure for the whole Province has decreased slightly, Municipal and Town expenditure outside Rangoon has risen by two lakhs, though this rise is by no means commensurate with the rise in income. Expenditure.

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

Particulars.	1909.	1908.
	Rs.	Rs.
Total Provincial income	1,55,7[illegible]97	1,30.85,669
Total Provincial expenditure	47,35,188	49.05.779
Percentage of expenditure to income	30·41	37·49
Municipal and Town income (not including Rangoon)	52,94,991	33.33,574
Municipal and Town expenditure (not including Rangoon)	14,95,406	12,84,343
Percentage of income to expenditure	28·24	38·53
Percentage of income spent on water-supply	7·58	6·43
Percentage of income spent on conservancy	1·06	17·73
Percentage of income spent on drainage	13·48	1·15
Percentage of income spent on other sanitary works	6·11	13·20

Water-supply.

231. The Akyab water-supply works came into use in the early months of the year. A revised water-supply scheme for Mandalay town was worked out by the Sanitary Engineer, the necessity for which has been emphasized by the heavy mortality from cholera at Mandalay during 1909. Schemes for the supply of Minbu and Thayetmyo towns were approved. The proposals for supplying Bassein town with water are in abeyance owing to lack of funds. No progress has been made during the year with the Pyinmana water-works, though the severe outbreak of cholera which occurred at this town in 1908 was repeated in 1909, owing, it is believed, to the pollution of the wells upon which the population still depend. A water-supply scheme for Kyaiklat town was approved, and one for Yandoon was under preparation. Proposals were also under consideration for the supply of water to Mergui town, and to villages in the Myingyan District in the vicinity of Kyaukpadaung.

Deep tube wells sunk by the Public Works Department at Nyaunglebin and Letpadan were repaired, and made effective, under the direction of the Sanitary Engineer. The tube well at Toungoo was re-sunk to a depth of 215 feet without finding water.

Conservancy.

232. A conservancy system was introduced at Katha during the year, but has proved to be cast on lines too expensive for the funds available. A scheme for Minbu was approved. The scheme for Kyaiklat has been approved, after several revisions. Some progress was made in extending the use of cheap incinerators.

Sanitary Board.

233. Two meetings of the Provincial Sanitary Board were held, at which the principal business was the drawing up of a memorandum on the laying out of Railway Towns, with a view to ensure provision of open spaces for recreation, conservancy lanes, and public sites, and the prevention of disease due to juxtaposition of grain stores, stabling, etc., with dwelling houses.

Vaccination.

234. The number of vaccinators employed rose from 259 to 266. Eight Native Superintendents of Vaccination and 38 apprentice vaccinators completed the full course of training at the Vaccine Depôt, Meiktila.

There was an increase of 10,144 in the total of operations performed. Operations performed at Dispensaries decreased by 1,826. Twenty-five districts show an increase on the work of the previous year. Fifteen show a decrease. Among these, large decreases in the operations performed in the districts of Akyab, Kyaukpyu, Tavoy, Prome, Thayetmyo, Sagaing and Lower Chindwin have been enquired into, and, except in the case of the three first-named districts, the pleas advanced by the Civil Surgeons are convincing. There is great room for improvement in the Tharrawaddy, Hanthawaddy, Pegu, Ma-ubin and Pyapôn Districts. The total number of persons vaccinated in Dispensaries was 12,261 against 14,087 in 1908-09. The falling off was mainly among persons over six years of age submitting to primary operation. The total decrease of successful cases was 981. Successful operations in infants decreased by ten only and in children under six years decreased by 91.

A marked improvement in verification of operations occurred. The total number of primary operations verified was 215,730 as compared with 178,661 in the previous year. The increase must be placed to the credit of the Native Superintendents of Vaccination. The number of primary operations verified by Civil Surgeons has fallen steadily since 1905-06 from 75,650 to 38,589 in 1908-09, with a slight recovery in 1909-10. Since the appointment of Native Superintendents the necessity for verification by the Civil Surgeon has decreased. The number of re-vaccinations verified was 35,430, of which Civil Surgeons verified 9,254 and Native Superintendents 26,176, these figures being respectively, 2,057 less, and 4,934 more, than the figures for the previous year.

The average cost of lymph per case rose from 2 annas 8 pies to 3 annas 2 pies. The rise was mainly due to increased expenditure on apparatus and other Europe stores, much of which is non-recurring, to loss of calves by rinderpest and foot-and-mouth disease, and to increased expenditure on feeding a large stock of calves, which could not be disposed of during the continuance of the epidemics. Only glycerinated lymph was issued The quality of the lymph has been extremely good, successful operations averaging 95 per cent. against 93 in the previous year, and 91·2 per cent. in 1907-08.

The total expenditure from Provincial, Municipal, Native States, and Local Funds in the Vaccination Department, rose from Rs. 1,49,847 to Rs. 1,80,784. The increase was mainly due to increase of establishment, travelling allowances and contingencies.

Owing to difficulties in the provision, at the wharf connected with the Vaccination Station, of sufficient accommodation for the vast number of immigrant deck passengers who arrive at the Port of Rangoon every week, the application of section 9 of the Burma Vaccination Law Amendment Act, which was brought into force on the 24th May 1909, was restricted to passengers from Calcutta and the Act was brought into abeyance altogether from 15th October, on account of the increase of immigrants during the busy shipping season.

CHAPTER VII.

INSTRUCTION.

REFERENCES—

Report on Public Instruction in Burma for the year 1909-10.
Report on the Insein Reformatory School for the year 1909.
Statistics of British India, Parts VI and VII.

General System [illegible]

See paragraphs 209 to 242 of the Report on the Administration of Burma for the year 1907-08.

Education.

Educational measures.

235. Among the important educational events of the year are, the abolition of the Itinerant Teachers; the formation of governing bodies for High Schools taking the Matriculation of the Calcutta University; a Conference on Technical Education; reorganization of the Courses of the Government Engineering School, Insein; the holding of the first Anglo-Vernacular High School Final Examination; and the sanction of the proposals for religious instruction in schools under public management. Among the chief matters under consideration are, the revision of the European Code; and the improvement of pay and prospects in the Indian Educational Service, and Provincial Educational Service. Other problems under discussion are the establishment of a University in Burma; the increase of the Inspectorate; the provision of permanent salary-grants for vernacular teacher managers; the recruitment of Principals in the Indian Educational Service for the chief Anglo-Vernacular Schools; the re-establishment of primary scholarships; and the provision and renovation of buildings.

Want of funds has prevented appointments to the sanctioned posts of Lady Inspectress, and of Assistant Inspector in Pâli. The Secretary of State has sanctioned a Professorship in Physics in the Indian Educational Service at Rangoon College.

Public and Private Schools and General.

236. The educational equipment of the country is divided into public institutions controlled, or inspected, or registered by the Education Department, and private institutions almost entirely outside departmental influence. The number of private institutions returned, 16,403, is much greater than the number of public institutions, (6,888), but the public institutions contain the bulk of the pupils, 262,968, as against 171,005, in private institutions. Of the private institutions, 14,856 are Buddhist monasteries, and among these very many must contain only two or three pupils apiece. The abolition of Itinerant Teachers, who used to enumerate these monasteries renders it necessary to invent some new agency for the purpose, and also raises a necessity for the strengthening of the lower inspecting staff, which is overworked in dealing with public institutions, and has no time to give to private ones, and which indeed it was assumed would be strengthened, out of the funds previously distributed among Itinerant Teachers.

The figures during the year shew a slight reaction in favour of private institutions, but this is accounted for by the fall in primary public institutions explained under that heading. The great feature of the year, the concession by which, as an experimental measure, religious instruction is under certain conditions to be imparted in public schools, has removed a strong line of demarcation between public and private institutions. Among the youth of the Province, football continues to increase in popularity and is more systematically, played in the Anglo-Vernacular Schools. But one or two schools have been compelled to refrain from outside

CHAP. VII.—INSTRUCTION.

competition. Physical drill for public institutions is increasing, and its regularisation, by system and grant, is under discussion. The morale of the schools is good, and, where necessary, efforts are being made to improve the morale of the subordinate educational staff. Very many Government Anglo-Vernacular Schools need extension, or provision of hostel accommodation, if they are to serve their districts. The general student-public of Rangoon continue to make increasing use of the facilities afforded by the Bernard Free Library, the Rangoon Literary Society, the Library of the Young Men's Christian Association, and the Teachers' Institute.

Number of schools and scholars and expenditure.

237. In the year under report, the total number of Colleges and schools of all kinds was 23,291. These were attended by 433,973 pupils of whom 74,173 were girls. Public institutions numbered 6,888, with an attendance of 262,968 pupils; and private institutions numbered 16,403, with 171,005 pupils. These returns show an increase of 0·8 per cent in number, and 0·2 in attendance. The percentage of male scholars to the male school-going population is 44·9, as compared with 44·76 last year; that of girls to the female school-going population is 9·6 as compared with last year's 9·66. The total expenditure on education rose from Rs. 39,31,783 to Rs. 42,71,018. This increase is mainly due to the inclusion for the first time of expenditure from fees, and private endowments, towards the upkeep of Aided Vernacular Schools. Roughly over one-third was met from Provincial Funds; nearly one-third from fees; and the remainder from Municipal and Local Funds, and contributions from private sources. Provincial Funds provided 17·03 lakhs for education, as against 17·45 lakhs in 1908-09, of which sum nearly 5 lakhs was spent on Government schools; a little over 6½ lakhs on aided schools; and Rs. 42,643 on District and Municipal institutions. Fees have gone up from 10·32 lakhs to 13·77 lakhs, and receipts from "Other Sources" have dropped from 4·48 lakhs to 4·44. Expenditure on buildings, and furniture, amounted to 2·14 lakhs, as compared with 2·58 lakhs last year; and expenditure on Direction and Inspection, which is almost entirely paid by Government, rose from 3·91 lakhs to 3·99 lakhs.

Primary Education.

238. The term *Primary School* in Burma includes European Anglo-Vernacular and Vernacular Schools, which teach up to the Fourth Standard, and for certain purposes the Primary Departments of Secondary Schools. For the first time for nearly ten years the figures for registered Primary Schools for boys show a distinct decrease. So far as Anglo-Vernacular Schools are concerned, the decrease, of seven schools, may be accounted for by the raising of certain Primary Schools to the Middle grade. Registered Vernacular Primary Boys' Schools have lost ninety-one schools, and 5,713 pupils. The causes of this decline are various; physical calamities, agriculture, reduction in grants, and the abolition of Itinerant Teachers, may all be cited as part causes. The total figures for pupils in Primary stages in boys' schools, including the Primary Departments of Secondary Schools, and exclusive of private institutions are 219,855 as compared with 221,485 last year. The figures for girls show a decrease of 595 pupils. The total number of pupils of both sexes in the primary stage of instruction, in all schools, was 246,030, compared with 248,255 in 1908-09, a decrease of 0·9 per cent. The figures are as follows:—

Pupils in Primary Schools	185,165
Pupils in Primary Departments of Secondary Schools ...	60,865
Total ...	246,030

Two Anglo-Vernacular Primary Schools belong to Government. Eighteen institutions are aided. Seven Vernacular Primary Schools are under Government management, as compared with ten in 1908-09. The new system, by which English is only taught orally in the first three standards of Anglo-Vernacular Schools, has not been in force long enough yet for a clear opinion to be formed. But in some schools a general improvement has been found.

The total expenditure on Primary education, including the cost of the Primary Departments of Secondary Schools, was Rs. 16,24,222, against Rs. 13,57,005

CHAP. VII. —INSTRUCTION.

last year. Provincial Funds contributed Rs. 4,59,721, and District Funds Rs. 3,31,305.

Secondary Education.

239. All schools possessing a standard above the Fourth are designated *Secondary*. Anglo-Vernacular Secondary Boys' Schools have risen in number from eighty-eight to ninety-seven, and the number of pupils has increased from 19,789 to 20,437. These figures show that the slight decrease, noted in last year's report, has been checked. In the High School Department (above the Seventh Standard), the total of pupils is 147 below the 1907-08 figure; but in the Middle School Department the total is 6,274, against 5,184 in 1908-09, and 5,828 in 1907-08.

Vernacular Secondary Schools have risen in number from 583 schools with 40,162 pupils, to 650 schools with an attendance of 45,622; but there has been a decline of 947 in the numbers of the Anglo-Vernacular Lower Primary standards, coupled with an increase in the numbers of Middle Anglo-Vernacular classes; the variations are accounted for by the change in the method of teaching English. There are now ten Vernacular High Schools, with 1,413 pupils, as compared with eleven schools, and 1,493 pupils, in 1908-09. This decrease may be explained by the abolition of the Itinerant Teacher service, unaccompanied by any increase of the subordinate inspecting staff, and any provision for a system of permanent salary-grants for trained teachers, which has led a number of pupils to abandon further study. Municipal Anglo-Vernacular Secondary Schools now number nine, as compared with thirteen last year, and sixteen in 1907-08. This decrease is caused by the taking over by Government, of the Municipal Schools at Prome, Yandoon, Letpadan, Mergui and Kyaikto. The Municipal Primary School at Allanmyo was raised to the Secondary grade during the year. Aided Anglo-Vernacular Schools increased from sixty-four to sixty-five, and Vernacular Secondary institutions have gained six District Cess Schools at Maungdaw, Rathedaung, Pônnagyun, Kyauktaw, Myohaung and Minbya. The numbers of Anglo-Vernacular High Schools are as follows:—Government 8, Municipal 2, Aided 10; of Middle Schools—Government 15, Municipal 7, Aided 55.

The new Anglo-Vernacular High School Final Examination was held, for the first time, by the Department in March 1910. Out of eighty-one candidates appearing thirty-two passed. At the Calcutta University Entrance Examination in the same month, 114 candidates appeared, and 101 passed, seventy-three being placed in the first class. At the Anglo-Vernacular Seventh Standard Examination out of 1,471 candidates, 664 passed. In the Vernacular Ninth Standard Examination forty-eight appeared, and seventeen passed; in the Vernacular Seventh Standard Examination 574 passed, out of a total of 2,144 presented. The total expenditure on Secondary Schools rose from 16·25 lakhs to 17·76 lakhs, of which over 5 lakhs came from Provincial Funds, and over 7¼ lakhs from fees. Last year's figures shewed—Provincial Funds nearly 5½ lakhs; fees over 6 lakhs.

Collegiate Education.

240. Collegiate education has made important strides during the year under report. There are two Colleges: Rangoon Government College and the Baptist College.

Rangoon College teaches up to the B.A. degree. The total attendance was 208, compared with 128, and 115, in the two preceding years. Professors of Chemistry, and Philosophy, have arrived, and a Professor of Physics has been sanctioned, thus bringing courses for a Science Degree within the sphere of practical politics. A comprehensive scheme of extension, and rebuilding, is under consideration. A temporary dining-room has been erected, and a house engaged to provide for overflow from the hostel. Yet twenty students in classes, and no less than forty applicants in the boarding department, had to be refused admission for lack of accommodation. The Principal reports that lodgings of students in the town are noisy, crowded, and insanitary, and afford little opportunity for study. Special classes for teachers were very successful, and during the year there were six students, mostly Indians, working for B. L., and ten for the second grade Pleadership Examination.

The Baptist College has only been affiliated up to B.A. in the year under report. The total attendance rose from twenty-seven to thirty-six. The new Cushing building can provide good accommodation for some fifty boarders.

Examination results as compared with those of the previous year are as follows :—

Particulars.	F.A. AND I.A.				B.A.			
	Examined.		Passed.		Examined.		Passed.	
	1909-10.	1908-09.	1909-10.	1908-09.	1909-10.	1908-09.	1909-10.	1908-09.
Government College ...	71	49	32	26	12	11	8	9
Baptist College	9	8	7	3	...	...	...	...

Two useful concessions have been granted. Calcutta University will allow students to take Buddhist Law, in place of Hindu Law for B.L., and Cambridge University has recognized Pâli as a substitute for Latin in its previous examination. In Calcutta University Examinations held during the year, complaints were made as to printers' errors in Burmese papers ; as to the Pâli and English papers ; and as to the practical work in Chemistry.

A draft Act, for the incorporation of a Burma University, was submitted to the Educational Syndicate, and is under the consideration of a special Committee appointed by that body.

Among other students, there are six male and three female Burma Government scholars at the Medical College, Calcutta, forty-one non-Burman and two Burman pupils preparing for work in Burma at the Royapuram Medical School, Madras ; and twenty-eight students, of whom twenty-three receive Government stipends, in the Rangoon Medical School.

The total expenditure in Collegiate education has increased by 7 per cent, from Rs. 92,918 to Rs. 99,491. Of this total, Provincial Revenues contributed about Rs. 54,000, as compared with Rs. 58,000 in 1908-09.

Technical Education.

241. The Government School of Engineering had 68 pupils on the rolls, as against 82 in 1908-09, and 90 in 1907-08. Of the total, Upper Subordinate students furnished 32, and Lower Subordinate 36. Less than half the total number are natives of this Province. The reorganization of the school has now been completed. The number of European apprentices in receipt of stipends is 37, against 36 of the previous year.

The total number of pupils in the three industrial schools, *viz.*, Prome Road Convent, and St. Mary's, Rangoon, and the Toungoo School, has fallen by twenty-two pupils. In the Northern Circle there were still fourteen weaving schools. At Moulmein basket-work was taught in the School for the blind, and classes in printing, book-binding, and carpentry, were held in the Bghai Karen School at Toungoo. The number of pupils presented for examination in Manual Training (Slöjd), has risen from 921 to 1,213, and the number of schools taking this subject from 14 to 27, the great bulk of such pupils belonging to Anglo-Vernacular Schools. Pupils taking needlework have also increased by 289; this increase is solely under European schools. Drawing is taken in nine European, fifty Anglo-Vernacular, and thirty Vernacular Schools. Singing is taught in thirteen Anglo-Vernacular Schools, in one European, and in one Vernacular School. There are twenty survey schools controlled by the Land Records Department, and at least two private commercial schools, of which no statistics have been received. At the Insein Reformatory, tin-smithy, carpentry, cane-work and boot-making are taught. The school will be transferred to the buildings at Thazi when funds permit. An important Conference on Technical Education was held in Rangoon in November, and its recommendations were at the end of the year under the consideration of the Local Government.

Training Schools.

242. The number of Normal Schools remained unchanged, but students under training have risen from 340 to 404, of whom 113 are women. Vernacular Normal students increased in numbers, but Anglo-Vernacular students diminished.

CHAP. VII.—INSTRUCTION.

On the other hand the number of outside Vernacular candidates for the Educational Syndicate's Examinations in Theory diminished considerably, while Anglo-Vernacular outside candidates increased. Of the 291 men, ninety-one were Anglo-Vernacular, and the rest Vernacular students. Of the women, sixty-three were Anglo-Vernacular, and fifty Vernacular. There are five Government, and seven Aided Normal Schools, the former with 194 students, the latter with 210. Pupil teachers decreased, from 289 to 255. Taking outside candidates and Normal students together, the following is the list of presentations and passes under the various grades :—

Particulars.		Presented.	Passed.
Vernacular ...	Primary	525	44
	Middle	271	62
	High	36	31
Anglo-Vernacular ...	Primary and Middle	146	76
	High	45	29

Expenditure on Normal Schools is met from Provincial Revenues and "Other Sources". The total cost was Rs. 1,51,288, shewing an increase of 11 per cent., and of this Rs. 1,37,807 was borne by Provincial Funds.

European Schools.

243. The number of European schools has increased by three, of which two are new institutions, and one is transferred from the Anglo-Vernacular list. The total number of Europeans under instruction, in all classes of institutions, was 3,680, as against 3,575 last year; of these 458 were in non-European schools. The total number of European pupils in European schools was 3,222, as compared with 2,798 last year, and 2,193 in 1907-08. Of this total, 1,597 were boys and 1,625 girls. There were thirty-four Europeans studying at the two Colleges, 126 in the High Department of Schools, 781 in the Middle, and 2,593 in the Primary Department, as compared with 27, 150, 749 and 2,507, respectively, last year.

The total expenditure on European education, (exclusive of boarding fees) increased from Rs. 3,30,842, to Rs. 3,93,161: of this expenditure Government provided Rs. 1,91,424, as compared with Rs. 1,61,652 in 1908-09. Scholarships have decreased from Rs. 8,758, to Rs. 7,333. The year under report marks the close of the old curriculum in the Middle, and High stages. The following table shows the number of presentations, and passes at the annual examination :—

Particulars.	Presented.		Passed.	
	Boys.	Girls.	Boys.	Girls.
European High School Final	26	20	20	17
European Middle School Examination, (Standard VII).	77	94	36	43
European Primary, (Standard IV)	187	179	91	102

Education of special classes.

244. The total number of Mahomedans under instruction has increased by 1,198 to 12,981, as compared with last year's increase by 2,245 to 11,783. The total, which stood last year at 11,783, is now 12,981. The number of Mahomedans in attendance at Arts Colleges, has risen from eight to fourteen, and 3,299 are in Secondary Schools, the large majority being in non-Mahomedan institutions. One Mahomedan obtained the degree of B.A., nine passed the Entrance, and one the Anglo-Vernacular High School Final, 340 the Middle School Examination, and 845 the Upper Primary test. The increase in private schools is twenty-one; and in public schools eighteen. Female education is slowly advancing. The total number of Mahomedan girls in public schools is now 1,422, or over 100 more than last year; and in private schools 1,059, as compared with 974.

The numbers in the Government schools for Chins have risen, and the three Shan Government schools are maintaining their numbers. Karen

Anglo-Vernacular public schools under private management, shew a slight fall in attendance, as do the corresponding schools for Shans, Tamils and Telugus. Karen Vernacular Schools have however increased, and have a larger attendance as have Talaing, Taungthu and Shan Vernacular public schools. As regards totals of pupils under instruction throughout the Province, Karens, Talaings, Chins, Shans, Danus and Inthas shew slight decreases; while Chinese, Indians, Palaungs and Taungthus have increased. The school in the Southern Shan States for the sons of Shan Chiefs is flourishing.

Female Education.

245. The total number of girls in institutions of all kinds, public and private, decreased by 409 to 74,173 The loss is confined to girls' schools, as the number of girls in boys' schools has risen. One girl in every ten of school-going age attended school, the same proportion as noted last year. Twelve attended Arts Colleges, and 113 Normal schools. Four Vernacular Schools for Girls are under Government management, the others are under aided control. No girls appeared for the Entrance Examination, or for the Anglo-Vernacular High School Final. Seventeen out of twenty passed the European High School Final, fifty-two the Anglo-Vernacular Seventh Standard, none the Vernacular Ninth Standard, twelve the Vernacular Seventh, 216 the Anglo-Vernacular Fourth, and 887 the Vernacular Fourth Standard Examination. The number of Anglo-Vernacular Girls' Schools was the same as in the preceding year, but the number of pupils decreased by 148. On the Vernacular side there was an increase of nine schools, but a decrease of 400 pupils. Of the girls in public institutions, 68,216 were in Primary standards, 1,264 in the Middle stage, and seventy-five in the High Department, representing a fall in the Primary, and a rise in the Middle, and High Departments.

The total expenditure on Girls' Vernacular Schools was Rs. 1,29,125, and on Girls' English (*i.e.*, European and Anglo-Vernacular) Schools Rs. 2,37,608. The cost of English Secondary Girls' Schools has fallen by Rs. 8,087, and that of Primary Schools increased by Rs. 7,041. Contributions from Local and Municipal Funds increased, from Rs. 66,145 to Rs. 67,352. Eleven per cent. of the total direct expenditure from public funds on education went to Girls' Schools, as compared with nine per cent. in the previous year.

Insein Reformatory School.

246. At the end of the year under report the total number of boys confined in the Insein Reformatory School was 90; at the end of the previous year the total stood at 97. During the year there were 14 admissions and 21 discharges. Of the 90 boys, 62 were Buddhists, 18 were Hindus and 10 Mahomedans. Of the new admissions, 9 were illiterate. Seventy-eight boys were presented for examination in literary subjects, and 76 passed. In technical subjects, 49 were presented, and all passed. The reports received from Deputy Inspectors regarding boys who have left the school continue to be satisfactory, but in several cases it has been found impossible to trace their whereabouts. The net expenditure in the school amounted to Rs. 13,551, as compared with Rs. 13,247 last year. The profit of the Manufacture Department was Rs. 642-10-1.

Literature and the Press.

Publications registered.

247. The number of publications registered rose from 221 to 246, of which 213 were in Pâli, Burmese or both combined, 15 in English, 4 in English and Burmese, and the remaining 14 in Pwo-Karen, Sgau-Karen, Tamil, Tamil and English, Chin, Shan, Talaing, Urdu and Lahoo. The principal classes were Religion 121, Drama 19, Science 19, Language 18 and Medicine 9. The fall under *Drama* 68 to 19 was partly due to the exclusion of love letters and ballads from this class, and led to a rise in miscellaneous publications from 29 to 47. Considering that these cheap and handy pamphlets form the staple reading of a large number of imaginative youths there is perhaps a desirable improvement in the fact that no criminals or dacoits figured as heroes this year. *Fiction*, which has still to develop, consisted this year of five works of which two were puerile translations entitled *Julia's Victory* and *Teddy's Button* of little literary value or interest to a Burmese school boy, and one was a poor imitation in Burmese and by a Burman of a European sensational novel. Burmese *Histories* of Burma, Toungoo and

CHAP. VII. —INSTRUCTION.

Tharrawaddy and of Four Pagodas appeared, which might be interesting to the Ethnographical student. The majority of the eighteen works on *Language* were as usual in Pâli and Burmese on Pâli grammar and vocabulary, and included a Burmese translation of the commentary on the Pâli Dictionary; a commentary called *Nayatha Pat* on Kaccháyana's grammar; and a series of Burmese readers for European schools. Under *Law*, an index of Burma cases judicially noted is of value. Under *Medicine* there were nine works excluding two wrongly classified as Miscellaneous. The seven Burmese or Pâli works contain the usual blend of medicine, dietary and astrology, and the famous preacher and religious writer the *Ledi Sayadaw* is responsible for one of them. Pamphlets by Colonel Castor on the care of mothers and infants; Dr. San G Po on First Aid; and Captain Ba Ket on Plague, will be useful. Under *Miscellaneous* publications of interest are, an instruction by a native chief, the Hsipaw *Sawbwa*, on almsgiving to backsliding *pôngyis*; an account by an English *pôngyi*, Ananda Metteya of a preaching tour in England, with an appeal for the establishment of a monastery there and a Lahoo reader containing samples of little known Shan folklore. Under *Poetry* there is only one work registered, a Burmese metrical treatise on the *Ten Virtues*, but a book of Burmese songs, and some verses entitled "Muslim Chivalry" might be included. *Religion* shows a rise from 83 to 121, of which the Pâli and Burmese works on Buddhism rise from 66 to 113. Five are by the *Ledi Sayadaw* who gives a valuable exposition of the Anâtta in *Anatta Dipani Kyan*. The *Zat Atthakatha Pat* is a collection of Jatakas, whether from the orthodox canon or the interesting apochrypha of Indo-China is not clear. The *Thukumara Metga Winaya* is a book of instructions for the religious guidance of boys, of interest in connection with the recent concession as to religious instruction in Government schools. The eight religious books in other languages are in Chin, Sgau-Karen, Pwo-Karen, Talaing, Shan and Tamil, and of these the book of Genesis in Talaing may be of use to students of that interesting language. Books on *Science* have risen from 7 to 19, and those of interest are a book by Major Harrington on the *Birds of Burma*, a *Catechism of Hygiene* in the vernacular, and elementary geographies in Burmese, Sgau-Karen and Urdu.

Presses, Newspapers and Periodicals.

248. The number of presses at work rose from 81 to 90. In Rangoon there was a decrease from 38 to 35 by the disappearance of some jobbing Indian presses; in Mandalay there was an increase of one and in Moulmein the number remained the same as last year. Elsewhere there was an increase of eleven Burmese presses, including the establishment of presses in Hanthawaddy, Prome, Pyapôn, and Pakôkku, in which districts none were reported last year. The line between newspapers and periodicals is not very distinct. Newspapers reported rose from 42 to 44 by the publication of the *Myanmya News*, in Burmese, and the *United Burma*, an English paper under Indian management in Rangoon. The languages used were English 24 (of which 16 were in Rangoon), Burmese 12, Sgau-Karen 5, Pwo-Karen 1, Chinese 1 and Gujerati 1. There were eight dailies; 5 English, 2 Burmese and 1 Chinese, of which one English daily appeared in Mandalay and the rest in Rangoon. Excluding 33 Government publications, the number of periodicals were nineteen as last year, and included the *Monthly Review of the Society for promoting Buddhism* and the *Burma Critic* published in Mandalay, 5 Missionary periodicals at Toungoo, and 4 Missionary, 3 trade, 2 Educational, and 3 Buddhist publications in Rangoon. The features of the year were firstly the increase of Burmese presses and publications especially in the mofussil, with the decrease of Rangoon Indian jobbing presses already alluded to, and secondly the continuance of the Burmese Buddhist revival evinced by the opening of the Burman Buddhist Mission Press, Rangoon, and its issue of a Buddhist periodical, and by the publication of two magazines—the *Burman* and the Burman Buddhist Magazine conducted by the Young Men's Buddhist Association.

See paragraphs 487 to 489 of the Report on the Administration of Burma for the year 1901-02 and paragraph 282 of the Report on the Administration of Burma for the year 1904-05.

249. In the year under report the *Chinese Empire Reformation Association* opened a school to teach children Chinese on a modern system; the *Bar Library Association* and *Rangoon Pleaders' Association* were accommodated with rooms and furniture in the new Chief Court Buildings; and two new Societies of importance were reported, the *Buddhist Propaganda Society* (established in 1907) and the *Young Men's Buddhist Asscciation* (established in 1906). The *Buddhist Propaganda Society* has 1,210 members, and has eight monks permanently engaged in preaching; it has received the permission of Government to impart religious instruction in Government and Municipal schools throughout Burma; and has opened the Buddhist Mission Press, and issued a monthly religious journal. The *Young Men's Buddhist Asscciation* has 346 members; it has a lending library and reading room with some accommodation for members at 47, Lewis Street, Rangoon; it has subscribed to the establishment of the Buddhist Mission Press mentioned above, and maintains an English weekly, the *Burman*, and a monthly Magazine in English, Burmese and Pâli called the *Burman Buddhist*.

Arts and Sciences.

250. There is nothing to discuss under the head of Sciences. The proposal to appoint an Expert Provincial Art Officer was held in abeyance for lack of funds. Mr. H. L. Tilly, Commissioner, who has done much for many years to arrest the decline of Native Arts which is inevitable when patronage is lacking, by competitions and suggestion of markets, and who has lately occupied the honorary post of Provincial Art Officer, resigned preparatory to retirement and was succeeded by Mr. J. MacKenna, I.C.S., Director of Agriculture. In spite of much inevitable decline and corruption of taste in the many branches of Burmese Art some hopeful signs are reported. Wood-carving is in good demand in Mandalay which supplies pagoda carving for the Province, and in Henzada for ornament to Burmese boats. Silver work in Thayetmyo, and goldsmith's work and the manufacture of painted umbrellas at Bassein also show signs of expansion. Something was done during the year by the sanction of apprenticeship under Government for four years at stipends of Rs. 10 per month of ten youths to master-workers in silver, lacquer, wood-carving, and figure-carving, at various centres in the Province. No local exhibition was held at Bassein during the year. The Provincial Art Handicraft Exhibition was held in Rangoon in February, and showed a considerable increase in exhibits, out-stations being well represented. The *low relief silver* work was of a very high order of merit. *Statuettes*, both in silver and bronze, evidenced accurate and careful work, and many exhibits in these classes were of distinct excellence. In *ivory-carving* there were some exhibits of outstanding merit and the general standard was good Classes for *goldsmiths* attracted little competition, and *wood-carving* showed little improvement; the figure subjects were crude and badly designed, lacked finish and contrasted very unfavourably with similar work in the metals. The quality of the exhibits was generally good, and the exhibition was a *successful* one.

CHAPTER VIII.

ARCHÆOLOGY.

REFERENCES :—

Report of the Superintendent, Archæological Survey, Burma, for the year 1909-10.

251. The two branches of the work of the Archæological Department, are conservation undertaken under the Ancient Monuments Preservation Act by the Public Works Department, and direct research and restoration by the Superintendent of the Archæological Survey. In conservation under the Act by the Public Works Department, a limit of Rs. 21,000 was imposed during the year, and Rs. 18,327 was spent as against Rs. 18,282 in the previous year. This provided annual repairs for sixteen buildings in Mandalay and for some pagodas at Pagan; for small special repairs to four pagodas at Pagan; for the architectural survey of the Palace at Mandalay (Rs. 2,304); for re-building the Palace spire blown down last year (Rs. 5,339); for repairs to the Nanpaya Pagoda, Pagan (Rs. 1,530) and for a few small items (Rs. 161). The number of buildings maintained was increased at Pagan from 31 to 33 by the addition of two pagodas with valuable relief at Nyaung-u; at Amarapura by the tomb of King Mindon's mother; and at Mandalay by the addition of a monastery. The Executive Engineer and Chief Engineer inspected the Pagan Pagodas, and wrote notes on their drainage, and conservation. Six-hundred inscribed stones at Amarapura were placed on the platform of the Patodawgyi Pagoda for safety, and forty-one similar stones at Sagaing were collected at the Tapayon Pagoda, and sanction obtained for covering them at a cost of Rs. 5,513. The architectural survey of the Palace was suspended pending further funds after seven drawings had been completed. The repairs to the Nanpaya Temple at Pagan were suspended owing to cholera in December and only resumed in February. Steps have been taken to ensure smooth working between the Archæological and Public Works Departments in carrying out repairs. The establishment charges of the office of the Superintendent includes Rs. 383 on photography and Rs. 1,810 on preservation of archæological remains. The excavations of certain pagodas at Hmawza, Yathemyo, the ancient capital of Prome continued, but were disappointing, as the pagoda opened up was found to have been rifled. Specimens of the tablets found, in the course of the excavations at Yathemyo were sent to the Government Epigraphist. The ruins at Pegu were inspected at the request of the people, and excavations at the Yathemyo there, an ancient Talaing seat, is proposed. Besides the Palace drawings, twelve drawings were made in the course of the excavations at Hmawza; 109 photographs were taken at Pagan, Prome, Hmawza, Pegu, and Rangoon; 53 estampages were taken in the Prome, Rangoon, Pegu, Magwe, Thayetmyo and Sagaing Districts, of which 26 were in Talaing and the rest in Burmese. Further progress was made towards a list of antiquities of the Province by preparation of lists of structural edifices, and historic sites in the Mandalay, Ruby Mines, Sagaing and Shwebo Districts of the Mandalay and Sagaing Divisions. In twenty-eight localities in the Province removal of sculptures, etc., was forbidden under section 18 of the Ancient Monuments Preservation Act. The Talaing part of the Myazedi inscription at Pagan dated 1085 A.D., was translated and published in the Journal of the Royal Asiatic Society by Mr. C. O. Blagden, who has now in hand the part of the inscription in an unknown tongue, supposed to be in Pyu, the extinct language of the ancient Thibeto-Burman people of Prome. Last year's researches established intercourse between Prome and Northern India, between the 4th and 6th centuries of the Christian era. Close political connection is now shown, between China and ancient Prome during the 8th and 9th centuries, though it is possible that the seat of power was then at Pagan. The greatest interest was taken by the Burmese Buddhist community in the discovery at Peshawar of what are believed to be the relics of Buddha enshrined by Kanishka, and much satisfaction was felt by the people of Burma when it was decided that the relics should be entrusted to the Buddhists of the Indian Empire and enshrined at Mandalay. His Excellency the Viceroy was graciously pleased to present the relics to a Burmese deputation at Calcutta, by whom they were conveyed to Mandalay.

CHAPTER IX.

MISCELLANEOUS.

REFERENCES :—

Report of the Chemical Examiner and Bacteriologist to the Government of Burma for the year 1909.
Statistics of British India, Part VI.

See paragraphs 492 and 493 of the Report on the Administration of Burma for the year 1901-02.

Ecclesiastical.

252. The Right Reverend A. M. Knight, Bishop of Rangoon, remained absent on leave till October 1909, when he resigned and the Rev. R. S. Fyffe, Head of the Winchester Diocesan Mission at Mandalay, was appointed in his stead. Until this appointment the Rev. J. H. Collins acted as Archdeacon and Bishop's Commissary, the Venerable C. P. Cory being absent on furlough throughout the year.

Stationery.

253. The bulk of the paper used for official purposes continued to be supplied by the Controller of Stationery, Calcutta, from the Indian Mills. The cost of stationery supplied to General Departments and Presses in Burma during the year amounted to Rs. 91,881 and Rs. 2,59,490, respectively, showing decreases of Rs. 48,517 in the case of General Departments, and of Rs. 15,203 in the case of Government Presses, as compared with the previous year.

Chemical Examiner and Bacteriologist.

254. The number of articles examined in the Medico-legal Department fell from 1,267 to 1,236, the fall being due to the high number of articles examined for poison in 1908. In the General Department 16,460 articles were examined, the enormous increase being due to 11,096 bottles and packets of cocaine sent in by the Excise Department. It is reported that the cocaine bottles frequently contain sugar or boric acid. The number of cases connected with bloodshed increased by 57 and the articles by 103. Three hundred and sixty-three samples of water were examined, as against 304, of which 130 were pronounced unfit for drinking and 117 of fair quality only.

The number of specimens and articles examined bacteriologically was 912, an increase of 117.

Printed by order of the Government of Burma.

G. B. C. P. O.—No. 619, Chief Secy., 9 (a), 20-1-1911—620—J. A. P.

REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR

1910-11

RANGOON

OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA

1912

LIST OF AGENTS

FOR THE

SALE OF GOVERNMENT PUBLICATIONS.

IN INDIA:

THACKER, SPINK & Co., Calcutta and Simla.
W. NEWMAN & Co., Calcutta.
THACKER & Co., Bombay.
HIGGINBOTHAM & Co., MADRAS.
SUPERINTENDENT, AMERICAN BAPTIST MISSION PRESS, Rangoon.

IN ENGLAND:

HENRY S. KING & Co., 65, Cornhill, E.C., London.
CONSTABLE & Co., 10, Orange Street, Leicester Square, W. C.
KEGAN PAUL, TRENCH, TRUBNER & Co., 43, Gerrard Street, Soho, London, W.
BERNARD QUARITCH, 11, Grafton Street, New Bond Street, W.
P. S. KING & SON, 2 & 4, Great Smith Street, Westminster, London, W. S
GRINDLAY & Co., 54, Parliament Street, S. W.
T. FISHER UNWIN, 1, Adelphi Terrace, London, W. C.
B. H. BLACKWELL, 50 & 51, Broad Street, Oxford.
DEIGHTON BELL & Co., Cambridge.
W. THACKER & Co., 2, Creed Lane, London, E. C.
LUZAC & Co., 46, Great Russell Street, London, W. C.

ON THE CONTINENT:

R. FRIEDLANDER & SOHN, 11, Carlstrasse, Berlin, Germany.
OTTO HARRASSOWITZ, Leipzig, Germany.
KARL W. HIERSEMANN, Leipzig, Germany.
ERNEST LEROUX, 28, Rue Bonaparte, Paris, France.
MARTINUS NIJHOFF, The Hague, Holland.

[The maximum length of the Summary is from 20 to 30 pages, and of Part II 150 pages.]

TABLE OF CONTENTS.

REPORT ON THE ADMINISTRATION OF BURMA FOR THE YEAR 1910-11.

PART I.

GENERAL SUMMARY.

	PARA.	PAGE
Administration	1	i
The Shan States and Karenni	2	*ib.*
The Chin Hills	3	ii
The North-Eastern frontier	4	*ib.*
Condition of the people	5	*ib.*
Realisation of the land revenue	6	*ib.*
Surveys	7	iii
Settlements	8	*ib.*
Land Records	9	*ib.*
Transfers of land	10	*ib.*
Waste lands	11	iv
Revenue and rent-paying classes	12	*ib.*
Legislation	13	*ib.*
Police	14	*ib.*
Village administration	15	v
Criminal Justice	16	*ib.*
Prisons	17	vi
Civil Justice	18	*ib.*
Registration	19	vii
Companies	20	*ib.*
Municipal administration: Rangoon	21	*ib.*
Minor Municipalities	22	*ib.*
Military	23	viii
Marine	24	*ib.*
Commercial Marine	25	*ib.*
Agriculture	26	ix
Agricultural loans	27	*ib.*
Co-operative Credit Societies	28	*ib.*
Weather and crops	29	*ib.*
Horticulture	30	x
Forests	31	*ib.*
Mines and quarries	32	*ib.*
Manufactures and factories	33	xi
Maritime trade	34	*ib.*
Transfrontier trade	35	*ib.*
Public Works—		
Roads and buildings	36	*ib.*
Railways and tramways	37	xii
Irrigation	38	*ib.*
Provincial financial settlement	39	xiii
Gross revenue and expenditure	40	*ib.*
Land Revenue	41	*ib.*
Customs	42	*ib.*
Salt	43	*ib.*
Excise	44	xiv
Stamps	45	*ib.*
Assessed Taxes	46	*ib.*
Forests	47	xv
Provincial revenue and finance	48	*ib.*
Local Funds	49	*ib.*
Municipal finance	50	*ib.*
Note circulation	51	*ib.*
Births and deaths	52	xvi
Medical relief	53	*ib.*
Sanitation	54	xvii
Vaccination	55	*ib.*
Education	56	*ib.*
Literature and presses	57	xviii
Arts and sciences	58	xix
Archæology	59	*ib.*

PART II.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

	PARA.	PAGE
PHYSICAL FEATURES OF THE COUNTRY, AREA, CLIMATE AND CHIEF STAPLES	... See pages 1 to 6 of Report for 1901-02	
POLITICAL.		
HISTORICAL SUMMARY	... See pages 6 to 10 of Report for 1901-02.	
FORM OF ADMINISTRATION	... See pages 1 to 5 of Part II of Report for 1907-08	
CHARACTER OF LAND TENURES; SYSTEM OF SURVEY AND SETTLEMENTS	... See pages 13 to 16 of Report for 1901-02 and pages 2 to 5 of Part II of Report for 1908-09.	
CIVIL DIVISIONS OF BRITISH TERRITORY	... See pages 20 to 20 of Report for 1901-02	
DETAILS OF THE LAST CENSUS; TRIBES AND LANGUAGES	.. See pages 20 to 20 of Report for 1901-02	
Changes in the Administration.		
The Lieutenant-Governor	... 1	2
Administrative territorial units	... 2	*ib.*
Additions to and changes in the Administrative Staff	... 3	*ib.*
RELATIONS WITH TRIBUTARY STATES, AND FRONTIER AFFAIRS.		
(i) Shan and Karenni States.		
The Southern Shan States	... 4	2
Karenni	... 5	3
The Northern Shan States	... 6	4
Möng Mit	... 7	5
Thaungthut and Zingalein Kanti	.. 8	*ib.*
(ii) The Chin Hills.		
Relations with external areas	... 9	5
Internal affairs: the Chin Hills proper	... 10	*ib.*
The Upper Chindwin District: the Pakôkku Hill Tracts: the Arakan Hill Tracts	.. 11	*ib.*
(iii) The Kachin Hills.		
The Chinese border	... 12	6
Unadministered territory	... 13	*ib.*
Internal affairs	... 14	*ib.*
Condition of the People.		
General	... 15	7
Famine	... 16	*ib.*

CHAPTER II.

ADMINISTRATION OF THE LAND.

Realisation of the Revenue.		
Demand, remissions, collections and outstandings	... 17	8
Revenue proceedings and coercive processes	... 18	9
Surveys.		
Demarcation. Surveys by Imperial agency	... 19	9
Surveys by Provincial agency: Extension and Revision surveys	... 20	*ib.*
Town surveys. Fishery surveys. Surveys of leased areas	... 21	*ib.*

Settlements.

	PARA.	PAGE
Settlements completed	22	10
Settlements in progress, or commenced during the year	23	*ib.*
Financial results and expenditure	24	*ib.*
General remarks	25	*ib.*

Land Records.

Area under Supplementary survey : rural areas	26	11
Urban areas	27	*ib.*
Cost of Supplementary survey	28	*ib.*
General	29	*ib.*
Training of officers	30	12
Transfers of land	31	*ib.*

Waste Lands.

Grants and leases for cultivation	32	12
Revenue-free grants of land and assignments of land revenue	33	13

Government Estates and Wards' Estates.

———	34	13

Revenue and Rent-paying Classes.

Area held by agriculturists	35	13
Tenancies	36	*ib.*

CHAPTER III.

LEGISLATIVE AUTHORITY AND PROTECTION.	See pages 21 and 22 of Part II of Report for 1909-10.	

Course of Legislation.

Work of Legislative Council	37	14
General Acts affecting Burma	38	15
Regulations affecting Burma	39	*ib.*
Extension of enactments to Shan States	40	*ib.*

Police.

Civil Police : organization	41	16
Cost, strength, recruitment and conduct	42	*ib.*
Buildings	43	*ib.*
Crime and the working of the Police	44	*ib.*
Important incidents	45	17
Particular offences and cases under Special Acts	46	18
The preventive law	47	*ib.*
Surveillance and identification of criminals	48	*ib.*
Punitive Police	49	19
Railway Police	50	*ib.*
Military Police	51	*ib.*
Rangoon Town Police	52	20
Village administration	53	21
Wild animals and snakes	54	*ib.*

Criminal Justice.

Courts	55	22
Cases	56	*ib.*
Disposal of cases	57	23
Punishments	58	*ib.*
Appeals	59	24
Revisions	60	*ib.*

Prisons.

Accommodation	61	24
Prisoners	62	*ib.*
Discipline	63	*ib.*
Financial	64	25
Vital	65	*ib.*
Miscellaneous	66	*ib.*

Civil Justice.

Courts	67	26
Suits	68	*ib.*
Appeals	69	27
The Chief Court	70	*ib.*
The Court of the Judicial Commissioner, Upper Burma	71	*ib.*
General	72	*ib.*

Registration.

	PARA.	PAGE
Registration Offices and summary of results	73	27
Sales and mortgages	74	28
General	75	*ib.*

Joint Stock Companies.

Companies	76	28

Local Boards Administration.

———	77	29

MUNICIPAL ADMINISTRATION.

Rangoon Municipality	78	29
Minor Municipalities	79	*ib.*

Military.

Strength of the garrison	80	30
Military works	81	*ib.*

Military (Volunteering).

———	82	30

Marine.

Light-houses and light-ships	83	31
Port Administration, Rangoon	84	*ib.*
Pilot service, Rangoon	85	32
Minor ports	86	33
Commercial Marine : shipping	87	*ib.*
Commercial Marine : wrecks and casualties	88	*ib.*
Government steamers and launches	89	34
Marine works and surveys	90	*ib.*

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

Agriculture.

The Agricultural Department	91	36
Agricultural research and experiment	92	*ib.*
Demonstration, Shows and general remarks	93	37
The Veterinary Department	94	*ib.*
Agricultural stock and cattle disease	95	*ib*
Pony and cattle breeding	96	38
Agricultural loans	97	*ib.*
Co-operative Credit Societies	98	*ib.*
Protection from floods	99	*ib.*

Weather and Crops.

Character of the seasons	100	39
Area under cultivation	101	*ib.*
Area irrigated	102	*ib.*
Cropped area	103	40
Prices	104	*ib.*

Horticulture.

Agri-Horticultural Societies	105	41

Forests.

Administration	106	41
Forest Reserves, operations of survey and settlement, and working-plans	107	*ib.*
Preservation of the forests	108	42
Improvement of the forests	109	*ib.*
Exploitation of teak	110	43
Other kinds of wood	111	*ib.*
Finance	112	*ib.*
The Kheddah Department	113	*ib.*

Mines and Quarries.

	PARA.	PAGE
The Indian Mines Act	114	43
New concessions	115	*ib.*
Petroleum	116	44
Gold	117	*ib.*
Rubies	118	*ib.*
Other minerals	119	45
Quarry-stones and clay	120	*ib.*
Revenue from mines and quarries	121	*ib.*

Manufactures.

Principal industries	122	46
Factories	123	*ib.*

Trade.

Maritime trade: total values and revenue	124	47
Rangoon trade: total figures	125	48
Rangoon trade: foreign imports	126	*ib.*
Rangoon trade: foreign exports	127	49
Rangoon trade: British share	128	50
Rangoon: coasting trade	129	*ib.*
Subordinate ports	130	*ib.*
Transfrontier trade: general remarks	131	*ib.*
Trade with Western China	132	51
Northern Shan States	133	*ib.*
Southern Shan States	134	*ib.*
Northern Siam	135	*ib.*
Southern Siam	136	52
Karenni	137	*ib.*

PUBLIC WORKS.

Administrative and general	138	52

(*i*) *Roads and Buildings.*

Finance	139	52
Length of roads	140	53
Important works	141	*ib.*
Details: Imperial Civil works	142	54
Provincial: Civil buildings	143	*ib.*
Provincial: communications	144	*ib.*
Provincial: miscellaneous public improvements	145	*ib.*
Excluded Local Funds: (*a*) Buildings	146	55
(*b*) Communications and miscellaneous public improvements	147	*ib.*
Contribution works	148	*ib.*

(*ii*) *Railways and Tramways.*

Railways—Construction and surveys	149	55
Interruptions and accidents	150	*ib.*
Traffic and finance	151	56
Tramways	152	*ib.*

(*iii*) *Canals.*

Navigation canals	153	56

Irrigation.

Major irrigation works	154	57
Completed works	155	*ib.*
Works under construction	156	*ib.*
Minor irrigation works	157	58

CHAPTER V.

REVENUE AND FINANCE.

Provincial Settlement.

———	158	59

Gross Revenue and Expenditure.

———	159	60

(*a*) Imperial Revenue and Finance.

	PARA.	PAGE
Total Imperial figures: notable variations	160	60
Land Revenue.		
Land revenue receipts	161	60
Canal (Navigation and Irrigation) Revenue.		
———	162	61
Sources of Imperial Revenue other than the Land.		
Customs	163	61
Opium	164	*ib.*
Salt: changes in law and organization	165	62
———: Supplies of salt	166	*ib.*
Revenue and miscellaneous	167	*ib.*
Excise: general	168	*ib.*
———: opium	169	63
———: liquor	170	64
———: cocaine and morphia	171	*ib.*
Stamps	172	*ib.*
———: Judicial stamps	173	65
———: Non-judicial stamps	174	*ib.*
Assessed taxes	175	*ib.*
Forests	176	66

(*b*) Revenue and Finance other than Imperial.

Provincial Receipts and Expenditure.		
Provincial receipts	177	66
Provincial expenditure	178	67
Local Funds.		
District Cess Funds	179	67
District Funds	180	68
Other Funds	181	*ib.*
Road and Education Cesses.		
———	182	68
Municipal Revenues.		
Rangoon Municipality	183	68
Other Municipalities	184	69
Other Funds.		
———	185	69
Paper Currency.		
———	186	69

CHAPTER VI.

Vital Statistics and Medical Services

Births and Deaths.		
Number of births and deaths	187	71
Causes of death	188	*ib.*
Plague	189	72
Fevers	190	73
Emigration and Immigration.		
———	191	73

Medical Relief.

	PARA.	PAGE
Hospitals and Dispensaries	192	73
Attendance and treatment	193	*ib.*
General	194	74
Lunatic Asylums	195	*ib.*

Sanitation.

Principal works and expenditure	196	74

Vaccination.

Vaccination	197	75
General	198	76

CHAPTER VII.

INSTRUCTION.

GENERAL SYSTEM OF PUBLIC INSTRUCTION	See pages 77 to 83 of Part II of Report for 1907-08.

Education.

Educational measures	199	77
Public and Private schools, and general remarks	200	*ib.*
Number of schools and scholars and expenditure	201	78
Primary education	202	*ib.*
Secondary education	203	*ib.*
Collegiate education	204	79
Technical education	205	*ib.*
Training schools	206	*ib.*
European schools	207	80
Education of special classes	208	*ib.*
Female education	209	*ib.*
Insein Reformatory School	210	81

Literature and the Press.

Publications registered	211	81
Presses, newspapers and periodicals	212	*ib.*

LITERARY SOCIETIES

———	See page 101 of Report for 1901-02 and page 69 of Part II of Report for 1904-05
Rangoon Societies	213 82

Arts and Sciences.

———	214	82

CHAPTER VIII.

ARCHÆOLOGY.

———	215	84

CHAPTER IX.

MISCELLANEOUS.

ECCLESIASTICAL JURISDICTION.

———	.. See page 104 of Report for 1901-02.

Ecclesiastical.

PARA. PAGE

——— 216 85

Stationery.

——— 217 85

Office of the Chemical Examiner and Bacteriologist.

——— 218 85

Office of the Superintendent of Government Printing.

——— 219 86

REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR 1910-11.

PART I.

GENERAL SUMMARY.

Administration.

1. Sir Herbert Thirkell White, K.C.I.E., I.C.S., was Lieutenant-Governor of Burma until his retirement on the 19th of May 1910, when Sir Harvey Adamson, K.C.S.I., I.C.S., assumed charge of the Government. There were few changes in administrative units during the year, and the number of Civil Divisions and Districts remained the same, though the rearrangement of the Hanthawaddy and Pegu Districts is foreshadowed in the near future.

The Shan States and Karenni.

2. The condition of the Southern Shan States remained peaceful: the rainfall was favourable to cultivation, and trade and the revenue of the States expanded. They shared in the access of serious crime which marked the year in Burma, but the volume of the less heinous kinds of crime diminished. The new railway line to the Southern Shan States was surveyed as far as Yawnghwe, the proposed terminus. The lack of means obliged Government to decrease its grant to the States from Provincial Funds for ordinary public works, but the Chiefs were able to contribute larger sums of money than in 1909-10. The year was notable in the history of Karenni for the success of the efforts of the Council administering the State of Kantarawadi to restore its finances, and for an extension in the cultivated area, affording a new means of subsistence to a population which had chiefly—until the decline of the trade in timber in recent years—depended on forest occupations for its livelihood.

The peace of the border in the Northern Shan States was not undisturbed, and it was necessary for the Police to use armed force on more than one occasion. In the unadministered regions in the east of the States there were also dissensions and, within administered territory, the management of the State of North Hsenwi called for measures of reorganization. The mass of crime in the States declined, but, as elsewhere, offences of the more serious kinds grew in frequency. The rainfall was good, the aggregate revenue of the States advanced, and the general prosperity of the people continued to rise. The States supplemented a necessarily restricted grant from Provincial Funds by expending over five lakhs of rupees on public works. Five new Public schools were registered during the year.

The State of Möng Mit enjoyed an uneventful and prosperous year, and in the small Shan States along the course of the Upper Chindwin River there was no outstanding event, except the occurrence of a raid carried out by a village in the unadministered region.

The Chin Hills.

3. The event of most importance in the history of the Chin Hills was the successful despatch of joint columns—one marching from the Upper Chindwin District, the other from the Naga Hill Tracts in the Province of Eastern Bengal and Assam—for the purpose of punishing the village of Makware in unadministered territory for a raid perpetrated on Homalin village in the Upper Chindwin District. In the Chin Hills proper the rate of tribute was raised and the enhanced demand was realized without difficulty. In the other administered regions inhabited by Chins the year was uneventful.

The North-Eastern frontier.

4. The condition of the Chinese marches was in the main peaceful, only one raid into British territory taking place. The successful efforts of the Chinese authorities to suppress the cultivation of the poppy in Yünnan has had the effect of largely enhancing the price of opium, and cultivation of the plant on the British side of the frontier is increasing. In unadministered territory the most notable event was the despatch of columns north-east of Myitkyina to Hpimaw and north to Hkamti Lōng. The attitude of the tribes encountered was friendly. A Military Police post was established at Lauhkaung on the 'Nmaikha. Elsewhere along the line of unadministered territory the year was free from incident, save for a recrudescence of the inveterate Laban feud, and premonitions of a revival of the Tingaw vendetta. The total number of criminal cases instituted in the Kachin Hill Tracts fell, but violent crime increased in the Bhamo District. The amount of tribute demanded rose, but collection was effected without difficulty. The work done by headmen was generally good and inter-village paths were well maintained.

Condition of the people.

5. Agricultural conditions were, for the cultivator, less favourable in both parts of the Province, but in Lower Burma an increase in prices compensated, perhaps fully, for this. Certain districts in the Dry Zone of Upper Burma, especially Yamèthin and Meiktila, underwent some distress, and in Thayetmyo and Tavoy there was local scarcity which, however, nowhere called for the introduction of the measures allowed by the Famine Code.

Realization of the land revenue.

6. In the wider meaning of the term, *i.e.*, including *thathameda*,* the capitation tax and some other sources of supply, the demand of Land Revenue rose: but the increase in the demand of land revenue proper was very small and—owing to the fact that much larger remissions had to be granted—the actual collections fell considerably below the figure of the preceding year. Lower Burma suffered from floods and portions of the Upper Province from deficient or untimely rain, and there was no large increase from new settlements of the revenue. The prediction made in 1908 † that the limit of expansion of ordinary land revenue was not even in sight might thus appear to have been, within the short space of three years, falsified: it did not, however, take into account the effect of applying to Lower Burma the system of Revenue Settlement under which the operations continue for more than one year: under the old system higher rates of land revenue came into effect somewhere in the Lower Province every year, whilst under the new it may happen that a year passes without any large enhancement

* *Thathameda*, the household tax in Upper Burma.
† *Report on the Administration of Burma* for 1907-08, Part II, paragraph 40.

accruing. This was the case in 1910-11. When the increment due to enhancement of rates is deducted from the demand of each of the two years, it appears that the increase in the demand in the year of report, although not considerable, was nevertheless greater than the trifling amount shown in the returns. The adversity of agricultural conditions during the year is further indicated by the fact that coercive processes—and particularly the severer measures—were more freely utilized for the recovery of the revenue than in the preceding year.

Surveys.

7. The Topographical survey by the Survey of India Department of regions in the north and east of the Province continued, and trigonometrical and other scientific operations were conducted in several localities. No special establishment was entertained at the cost of Provincial funds for the survey of large extensions of cultivation, but Revision survey by special agency went on in two districts of Lower Burma, and further operations are contemplated. Financial considerations impeded the survey of urban areas, but it was found practicable to institute demarcation in several, and to carry out survey operations in five towns. Eighty-one fisheries were demarcated and surveyed in the Lower Province. The area of land surveyed as a preliminary to the grant of leases varied little from the figure of 1909-10, if an exceptional area falling within the figures of the preceding year be excluded. In the Tenasserim Division a considerable area—though less than in the preceding year—was surveyed as a preliminary to the cultivation of rubber.

Settlements.

8. Financial stringency prevented the creation of new Settlement establishments; the number of parties remained at five, and the number of districts in which the rates of land revenue have been fixed after the elaborate enquiry known as a Revenue Settlement at thirty-one out of thirty-seven. Four settlements were completed and, in continuation, four new areas were taken up during the year. The settlement of the first circuit of the Hanthawaddy District commenced the cycle of third settlements in Lower Burma. New rates were sanctioned in the Lower Chindwin District. The expenditure on settlement operations declined considerably.

Land Records.

9. The rural area under Supplementary survey rose by more than a thousand square miles, the increase accompanying the introduction of operations into three townships of the Pakôkku District. The number of towns in which the operations of Supplementary survey are carried out also rose considerably. The cost of the operations advanced with the extension of survey to new areas and now approaches fifteen lakhs of rupees. In the Upper Province it had been found that the parties concerned failed to report alienations of land to the village headmen; in the year of report the rule was accordingly changed and in future these reports are to be made to the Revenue Surveyor. Survey schools had a less successful year; a decline in the number of pupils and poorer results at examination were reported.

Transfers of land.

10. The area of land transferred, whether by outright sale or by mortgage, declined to the lowest figures on record. The area of mortgaged land redeemed was the lowest for many years. The value per acre of land, whether sold or

mortgaged, also declined, the fall being most marked in the Lower Province, where the range of the statistics is much greater and the chance of exceptional error less. The diminution in the amount of land transferred is ascribed to the fear of agrarian legislation restricting transfers, and the drop in value to a curtailment of credit facilities.

Waste lands.

11. Land is not often now formally leased or granted except for the cultivation of special staples, or for the purpose of conferring special terms of exemption from the land revenue otherwise payable. Large areas were leased in the Tenasserim Division for the purpose of cultivating rubber, and the Provincial area rose, in spite of a considerable diminution in the area leased in the Arakan Division.

Revenue and rent-paying classes.

12. The great bulk of the occupied land is held by agriculturists. The area held by tenants paying full, that is to say fixed, rents continued to rise and now, in seventeen districts of the Lower Province, approaches three million acres. Friction between landlord and tenant is exceptional.

Legislation.

13. Three Bills were passed by the Legislative Council of Burma during the official year. The Burma Process Fees Act consolidates and simplifies the law relating to processes and process-servers. The Burma Steam-boilers and Prime-movers Act is a repealing and re-enacting Act, providing better means for reporting accidents and breaches of the law, and a better classification of engines. The Rangoon Police Amendment Act was framed with the main object of restricting the carrying of knives, loaded sticks and other weapons of a deadly character in public places in Rangoon. Two Regulations affecting Burma were enacted. These were Regulation II, which amended existing legislation with the object of delegating certain powers to the Local Government, and Regulation VI, which had the object of controlling the petroleum-mining industry in Upper Burma.

Police.

14. In the Civil Police force, the cadres of Sub-Inspector and European Sergeant were increased in order to constitute reserves. The cost of the force rose to fifty-five lakhs of rupees approximately. There is still difficulty in recruiting up to the sanctioned strength and proposals were made in several cases, and have been sanctioned after the close of the year in the case of the Hanthawaddy District, to raise the emoluments of certain ranks. Dismissals were fewer than in 1909, as were resignations without pension or gratuity, but departmental punishments increased. On the whole, service in the force appears to have been slightly more popular, but the lack of housing accommodation is acutely felt and, until houses are provided, it cannot be said whether the existing rates of pay are adequate generally or not. There was a regrettable rise in the volume of crime and though, if gauged by the total number of cases dealt with, the year was not the worst, yet in the graver classes the year showed an increase, the figures for 1910 being the highest of the quinquennium under the heads of offences against the State, serious offences against the person, and serious offences against persons and property, or property only. The Pegu Division continued to show the greatest volume and the largest increase of crime. There was a marked rise in the number of violent crimes, and cases of kidnapping and abduction for ransom, in some cases attended with murder, were numerous in the Tharrawaddy and Prome

Districts. Proposals are being framed for improving the organization of the Police in the Division, the condition of some parts of which are characterized as lawless. Cases of cattle-theft increased in number, as did Excise cases, but there was a slight decline in the number of prosecutions under the Opium and Gambling law. Of individual incidents, the most notable among many grave crimes was a rising which took place in the Sagaing District in November 1910: over eight hundred men joined in it and, though the attack of the insurgents on the Police-station at Myinmu was unsuccessful, there was a failure to obtain information of the rising in advance. Detection and the preparation of cases for trial were about as successful as in 1909. The 'preventive' sections of the Code of Criminal Procedure were employed in prosecuting approximately the same number of persons as in 1909, but the figure was markedly lower than that of 1908 and there were cases in which the local Police authorities did not give effect to these provisions of the law. Surveillance of prisoners is stated to have been generally effective; the identification of offenders by the Police was good, and the Finger-print Bureau continued to do successful work. Punitive Police-forces were posted in the Tharrawaddy and Prome Districts. The administration of the Railway Police was uneventful. The amount of violent crime dealt with by that branch of the Police Department diminished, but this was no doubt in some measure due to a change in jurisdiction made in the previous year.

The Military Police maintained a high level of efficiency and discipline. In addition to the usual cold weather escorts in the frontier districts, columns accompanied Political Officers into the unadministered territory to the north-east of the Myitkyina District, and into Hkamti Lōng.

The Rangoon Town Police continued to do good work. In contrast to the rest of the Province, the volume of serious crime in Rangoon varied little from the figure of 1909, and the town was free from the riots and faction-fights which had troubled it in previous years. There was a noticeable diminution in the number of thefts from houses.

15. The total number of village headmen in the Province decreased slightly, the process of amalgamating headmen's charges in special cases being continued during the year of report. The number of headmen of large jurisdictions, or circles, receiving the full commission throughout their charges, diminished, as did the number of subordinate headmen receiving no commission, and against these diminutions is to be set an increase in the number of independent headmen drawing full commission. The number of headmen exercising special Civil or Criminal powers advanced. Village administration.

16. The number of original criminal cases tried by the Courts of the Province rose by more than two thousand. The passionate nature of the people, the spread of alcoholism, and—in the case of kidnapping and cattle theft—the extension of the system of ransom, under which the removal takes place primarily in order to extort a reward for restoration, are suggested in the reports as having caused the growth in criminality. Doubtless each of these causes, along with other obscurer motives, contributed. There was a large increase in the number of witnesses examined and the average duration of cases tried in Magistrates' Courts rose in both parts of the Province. There were fewer sentences of simple Criminal Justice.

fine, both in Upper and Lower Burma, whilst the number of sentences of imprisonment not exceeding one month rose by more than five hundred. The number of first offenders released on security under section 562 of the Code of Criminal Procedure was practically stationary in Lower, and fell slightly in Upper Burma. The number of appeals rose largely in Lower and slightly in Upper Burma, but the percentage of confirmations increased in both parts of the Province.

Prisons.

17. Accompanying the advance in the number of crimes and criminal trials, the year witnessed an increase in the number of convicted persons received into jail. The number was higher by nearly two thousand than in 1909. It was higher by a thousand than in any other year in the past decade, and the decade has seen an increase of 32·38 per cent., or more than double the percentage by which the population of the Province has risen. The reason of the increase is to be found in some measure in the tendency of the Courts, noticed above, to impose sentences of short terms of imprisonment. The total figure for the Province under the heads releases on probation, discharges after admonition, and deliveries to parent or guardian, given in the *Reports on the Administration of Criminal Justice*, was exactly the same in 1910 as in 1909, though the reports show six hundred and thirty more convicted persons in the later year, and this suggests that in some of the cases in which brief terms of imprisonment were awarded an order of conditional release or admonition would have been appropriate. The number of juvenile offenders admitted to jail showed a slight increase, but the percentage declined. Rules for the classification of the Meiktila Jail as a juvenile jail were brought into effect, and a satisfactory start was made in the application of a modified form of the Borstal treatment. The increase in jail admissions led to overcrowding. Fortunately this was not attended with prejudice to the health of the jail population, which continued to be good, but additional accommodation is required and steps are being taken to provide it as funds allow. The total number of punishments awarded in the jails fell largely, but the decrease was mainly in the category of minor offences: several of the graver forms of wrong-doing showed higher figures than in 1910. The net cost to the State per head for the maintenance of the prison population advanced slightly.

Civil Justice.

18. Alike in Upper and Lower Burma there was a decrease in the number of civil suits instituted, but the decline was less marked in 1910 than in preceding years. The Judges of the Chief Court had conjectured in 1909 that the diminution observed since 1906 in the number of cases instituted in Lower Burma might be due to some severe crisis experienced about the year 1905 by the *chetty** firms trading in Burma. The continued diminution in 1910 has led them now to the opinion that the real reason may be a general increase in prosperity. Probably many causes—a growth in general prosperity, the policy of Government towards transfers of land, and financial stringency among the *chetties*—have contributed. Some effect must also no doubt be assigned to the growing duration in the length of time an original suit takes to dispose of; to the increase—common in 1910 to both divisions of the Province—in the percentage of wholly infructuous proceedings

* A Madras caste which includes money-lenders.

in execution ; and to the diminution in the number of judgment debtors imprisoned. The percentage of suits for money or moveable property to the total number of suits instituted rose in 1910 both in Upper and Lower Burma. The same feature of increased average duration of the proceedings is noticed in the work of appellate courts during the year. As an exception to the general tendency of suits to diminish numerically, the number instituted on the Original Side of the Chief Court increased, as did institutions in Courts of Small Causes in both Upper and Lower Burma, and the latter fact goes to confirm the view that the diminution in the volume of litigation may be, to a certain extent, due to the protracted nature of civil litigation. In the Chief Court, in spite of the appointment of Additional Judges, there was congestion of work, and the average duration of contested cases on the Original Side rose to the high figure of four hundred and twenty-nine days.

Registration.

19. There were three more Registration Offices in operation at the end of 1910 than at the close of the preceding year. The year concluded a triennial period, a noticeable feature in which was the decrease in the number of documents registered and in the value of the property concerned. The last year of the triennium disclosed a revival, both in the number of registrations and in the aggregate value of the property affected, but the closing figures nevertheless stood considerably short of those for the years 1906 and 1907. Of compulsory registrations affecting immoveable property sales are more numerous than mortgages in Lower Burma, and the reverse is the case in the Upper Province. In Lower Burma the outstanding feature of the triennium was an increase in the number of sales of the value of Rs. 100 and upwards.

Companies.

20. There were again many new flotations, especially of undertakings connected with rubber and petroleum. Sixteen companies, with a paid-up capital of thirty-two lakhs of rupees, were wound up during the year, and six companies reduced their paid-up capital. The returns do not show what proportion of the reductions of capital represents losses written off, nor whether a winding-up represents termination of the undertaking on reconstruction, or on loss of the capital embarked, but the course of prices on the Rangoon Stock Exchange during the year, the published reports of companies' meetings, and the failure—after the close of the year of report—of a Bank in Rangoon show that there has been in recent years unhealthy flotation of companies in the Province.

Municipal administration : Rangoon.

21. No fresh taxation was introduced in Rangoon. The question of the assessment of Government property, which had been pending for some years, was decided. The occurrence of cases of human glanders led to an examination of all—and the destruction of many—of the hackney-carriage ponies. There was a fall in the general death rate and satisfactory progress was made in vaccination, but the plague mortality rose over the figures of 1909. Perhaps the most pressing reform now needed is an adequate supervision of the wholesale milk supply, which is reported to be disgracefully impure.

Minor Municipalities.

22. The number of minor Municipalities rose by one, through the substitution at Insein of a Municipality for the existing Town Committee, and now stands at forty-five. Sanitary works—aimed at the future suppression of plague—

continued to absorb all available funds, to the exclusion of many much-needed improvements and additions to ordinary public works. Schemes of water-supply were commenced in three Municipalities, and are at various stages of maturity in several others. The reclamation of low-lying Municipal areas engaged attention. Two new Municipal Hospitals were opened. The number of areas notified under the Municipal law rose by one, to seventeen.

Military.

23. A battalion of British Infantry was withdrawn from the Province towards the end of 1910, and the total strength of the garrison at the end of the year had decreased to less than ten thousand men. Expenditure on Military works declined. The number of volunteers and of efficients rose, but the amount of capitation and other grants fell slightly.

Marine.

24. The ordinary revenue of the Commissioners for the Port of Rangoon expanded by as much as five and a half lakhs of rupees, more than half of this sum accruing through an increase—from one and a half to four annas per ton—in the rate at which the River Due is imposed. Expenditure also rose, but solely on account of increasing debt charges, and there was a small surplus of ordinary revenue over ordinary expenditure. The execution of the project for guiding the Rangoon River was accelerated, and the work of depositing the brushwood mattresses which are to form the foundation of the training wall was completed, after the close of the year of report, a year and a half ahead of the anticipated time. This made it necessary to raise during the year a loan of six lakhs, which was issued at Rs. 94-10-0, a price which compares favourably with the price, Rs. 93, at which the loan of thirty-two lakhs of 1909-10 was negotiated. The Government of India sanctioned during the year a net estimate of one hundred and seventeen lakhs for the river-training scheme; owing, however, in part to an under-estimate of the cost of quarrying stone, and in part to material alteration in the plan of works, this estimate is now under revision and it is conjectured that the scheme will ultimately cost one hundred and fifty lakhs gross. There was an increase in the various heads of receipt of the Traffic Department. The heavy burden imposed on the revenues of the Port by the service of a capital debt which now approaches two hundred and fifty lakhs of rupees has retarded expenditure in several directions, and it was found impracticable in the year to develop the riverine estates recently acquired by the Commissioners. The reconstruction of the Sule Pagoda wharf continued. The pilotage service was satisfactorily maintained, and no serious accident occurred to a vessel in charge of a licensed pilot. Casualties to shipping, however, rose in number and were in three cases attended with loss of life.

Commercial Marine.

25. The entire administration of the light-houses was assigned to the Marine Department during the year. Structural and optical improvements were made in various light-houses. There was less sickness among the establishments. Over all the ports of the Province, fewer steamships entered from foreign countries than in 1909-10, but the aggregate tonnage rose; the number entering Rangoon increased slightly, and the tonnage considerably. Similarly, the number of vessels engaged in the coasting trade which entered the various ports decreased, but their tonnage was higher. The percentage of vessels flying a foreign flag declined.

Agriculture.

26. For the greater part of the year the Agricultural Department enjoyed the services of two European experts only. The full area of the Agricultural Station at Mandalay came into use, and a beginning was made with experimental cultivation at the Hmawbi Station in Lower Burma. Close relations were maintained between the Department and the Co-operative Credit Societies. Cultivation of the moisture-resisting variety of rice in the Akyab District expanded. The work of the Chemical Laboratory included many analyses of water and silt. The dissemination of information by means of leaflets and bulletins continued, and a scheme for the supply of improved agricultural implements was sanctioned by Government. A new Veterinary School was established at Taunggyi, in order to provide a convenient means of instructing Shans. Agricultural stock enjoyed a fair year and, in spite of numerous outbreaks of cattle disease, all descriptions of stock, except buffalo calves, increased in number.

Agricultural loans.

27. Larger advances were made to cultivators than in the preceding year and the amount of past advances repayment of which was suspended was, as in 1909-10, high, the occurrence of floods and other adverse agricultural conditions calling for leniency. An important change in procedure was made with the object of enabling advances to be given out earlier than in the past, namely at the commencement of the agricultural season.

Co-operative Credit Societies.

28. There was great activity in the formation of Co-operative Credit Societies, the number in existence nearly doubling. The Shwebo District alone established sixty-four and there is some evidence that in this district, which now has one hundred and fifty-four societies, their existence is reducing the rates of interest demanded by money-lenders. Societies continue to be much more numerous in Upper than in Lower Burma. Five new Urban societies were founded. The Central Society at Pakôkku was reorganized and a new Central Society formed at Mandalay, under the title of the Upper Burma Central Bank. Unions of societies trebled in number, and in them lies the chief hope of the movement. If it is found that the Unions make it practicable for societies to manage their own affairs, unlimited expansion will be possible, and this would necessarily be accompanied by a decline in outside rates of interest. A beginning was made with the formation of Cattle-insurance Societies. A Co-operative and Agricultural Conference was held after the close of the year.

Weather and crops.

29. Neither in Upper nor in Lower Burma was the agricultural year so favourable as 1909-10. In Lower Burma the rainfall was capricious and unevenly distributed and many of the maritime and inland districts suffered from floods. In Upper Burma the year was poor, except for the northern Wet-Zone fringe, for those regions which enjoy the benefit of irrigation, and for the strip of cultivation along the course of the large rivers, which bestowed a deeper inundation than usual. The occupied area in the Province rose, but the rate of increase has become slower, and the area of current fallows increased by a high percentage, as did the area on which crops, after being sown, failed to mature. The irrigated area fell to less than a million acres. The cropped area decreased by more than half a million acres. There were large general decreases in the area sown with the early variety of sesamum, and with red millet, and local

variations resulted in a decline in the area cropped with rice. Cotton also declined. Of the main crops, pulses alone showed a large increase, but an advance in the area under rubber is noted. A less favourable season and the probability of a restricted supply of rice caused the Rangoon price to open at a high figure. It remained high in that market and, as the Rangoon price regulates most district markets, there were few places which did not report a better price than in 1909-10. The price of cotton, groundnut, sesamum, red millet, white millet and the generality of other crops also rose; red bean was the only considerable crop which realized a lower price. There has been an extraordinary advance in the price of rice since the close of the year.

Horticulture.

30. The Agri-Horticultural Society of Burma increased the number of its members, and held a successful Exhibition in January 1911. The Tenasserim Agri-Horticultural Society was revived after four years of inactivity, and held a Show at Moulmein in the same month.

Forests.

31. A new scale of pay, varying with the length of service, came into operation for officers of the Provincial Forest Service and will improve the prospects of that branch of the Forest Department. A new Forest Division was created, and the Forest school was removed from Tharrawaddy to Pyinmana. Uniform rules were laid down for the Province on several technical matters. The creation of Forest Reserves continued, but the area finally notified and that within which private rights were determined were smaller than in the preceding year. Three parties were entertained for the preparation of working-plans. As with the topographical survey of reserved forest, working-plans lag far behind reservation and are now awaited for no less than sixteen thousand square miles. In portions of the Tharrawaddy and Sagaing Districts the felling of timber for fuel was either regulated or altogether prohibited, and in the Ruby Mines District the practice of shifting cultivation on hill-sides was forbidden over a considerable area. The cost of operations for the protection of the forests from fire fell. The amount of teak extracted increased, as did the removal of the unreserved kinds of wood. The receipts of the Department owing to these and other particular causes advanced largely: the financial results are more particularly noticed in a later paragraph of this summary. The Kheddah Department captured a large number of elephants, but lost many by disease: there was a financial deficit on the year's working, and the operations have been closed since the termination of the year of report.

Mines and Quarries.

32. The returns relating to mines disclose an extraordinary outburst of activity in examining the mineral resources of the Province. The number of applications for permission to prospect, explore, or mine increased more than four-fold: nearly five times as many applications were disposed of as in the preceding year: and, in spite of this, the number of cases pending at the end of the year was more than five times the corresponding figure in the previous year. The centre of activity was the Tavoy District, where the successful exploitation of wolfram-ore encouraged the search for that and other mineral deposits, but towards the close of the year the Mergui District shared in the fever. In the oil-bearing region the increased activity was due to a different

cause: there the main oil-fields returned a smaller production of petroleum, and it is reported that the oil-bearing sands are becoming exhausted. The prospecting effort of the year appears, however, to have revealed no new field of any magnitude; though new wells were reported from the Minbu and Pakôkku Districts. The gold-dredging and ruby-mining industries experienced an unfavourable year. Some copper was produced in the Myitkyina District. The Burma Mines Company extracted silver, lead-ore and lead-slag of the value of approximately twenty-five lakhs of rupees, or more than twice the value of the output of 1909, from the Bawdwin Mines. Tin was also exploited on an increasing scale in the Mergui District. The receipts of the State from royalties on petroleum, rubies, jade, amber and other minerals rose to the highest figure on record, partly owing to the fact that increased extraction of petroleum in the less important fields more than counterbalanced a decline in the Yenangyaung region, and partly on account of the activity, noticed above, in the Tavoy District.

Manufactures and Factories.

33. New industries which either took shape or were contemplated during the year were the production of sulphuric acid, the refining of lac, and the reduction of plantain fibre. The factory returns disclose steady progress, and three new kinds of factories were organized.

Maritime trade.

34. The trade with different countries appears in the returns for the last time according to the ports of shipment or discharge as declared in the bills of entry or the shipping bills, and not according to the countries of consignment or final destination. From 1911-12, compilation will be based on the countries of consignment and final destination. The total sea-borne trade rose largely, though the figures did not attain those of the record year 1907-08. The feature of the year's trade was the diversion from India to foreign countries of exports of rice.

Transfrontier trade.

35. The inland trade of the Province with the foreign countries and tributary States on the external frontier showed a healthy expansion, the value of the total trade being the highest yet recorded, both in exports and imports. All the border regions shared in the increase except Northern Siam, where railway extensions have introduced competing routes and a poll-tax on visitors retarded trade facilities, and Karenni, where adverse conditions in the teak trade resulted in an unfavourable year. The total trade is about one-tenth the volume of the sea-borne trade.

Public Works—Roads and Buildings.

36. The year witnessed the completion of arrangements for transferring to the Public Works Department all District and District Cess Fund projects requiring technical skill, and a redistribution of Public Works administrative charges is foreshadowed in consequence. Excluding outlay on works of irrigation, the expenditure on Provincial Civil Works was slightly greater in 1910-11 than in the preceding year, but many lakhs of rupees less than the figure of 1908-09, and no less than forty-six lakhs less than the figure of 1905-06. For such works it was found possible to provide only sixty-seven and a half lakhs, this figure being more than twelve lakhs below the amount, eighty lakhs, which it was thought would be available each year when the Provincial settlement of finance was drawn

up in 1907. The figures of expenditure under the head of Provincial Civil Works for the past six years have been, in lakhs of rupees :—114, 105, 105, 81, 67 and, in 1910-11, 67½ : they reflect the exiguity of the resources available for the creation and maintenance of means of communication in Burma. Of the expenditure of the year, only twenty-seven per cent. —a small proportion—was devoted to original works : the amount available for new communications was the inadequate sum of a little over four lakhs : and for the second year in succession no funds at all were available for the construction of new metalled roads. In the much diminished grants available of late years for public works in general, and in the decreasing amounts spent annually on new channels of communication, there is material for the complaints that appeared in the Press during the year to the effect that the Province is starved of roads. Apart from roads, many structural or administrative reforms remain untried or inchoate through the lack of funds for public works. The new General Hospital at Rangoon was completed during the year and forms one of the most imposing buildings in the East. The Chief Court was also finished. The noteworthy sanitary projects of the year will be mentioned in a later paragraph of this summary, against the heading Sanitation.

Railways and Tramways.

37. The length of open line remained unchanged and construction was confined to the Southern Shan States Railway, the location of which from Thazi on the main line to its proposed terminus at Yawnghwe in the States—a distance of one hundred and five miles—was completed. Survey work was carried on between Pyinmana and Minbyin on the projected Magwe branch line : between Ta Hapalai on the Lashio branch, and Nam Pai on the light railway constructed by the Burma Mines Company : between Nyaunglebin and Madauk ; and between Alôn and Saingbyin. Floods caused serious interruptions to the line ; a series of breaches occurred at the end of May north and south of Shwebo on the Mu Valley line, and floods released by the bursting of the embankment of an irrigation reservoir near Meiktila in the middle of September carried away portions of the line and impeded traffic for a prolonged period. Of the casualties reported, the only one attended with grave results was a trolly accident in which three persons lost their lives. The number of passengers carried by the railways rose, as did the net earnings.

The Rangoon Electric Tramways ran a slightly decreased mileage : the number of passengers carried and the traffic receipts also declined by a small amount. The Mandalay Tramways Company carried more passengers and ran a greater mileage. A further extension of time for completion of the Madaya-Mandalay Light Railway was asked for.

Irrigation.

38. Particular causes militated during the year to diminish the area irrigated from the major irrigation works already in operation. Floods and cattle disease were factors adverse to the full utilization of the Mandalay Canal system, whilst the absence, until the revenue settlement comes into operation, of differential rates for areas differing in advantage threw out of cultivation a portion of the area commanded by the Shwebo system. Progress on the Ye-u and Môn Canals continued, and the last-named system was opened after the close of the year of report. The breaching of the embankment of the Minhla reservoir in the Meiktila District,

and adverse conditions affecting the Panlaung systems of the Kyauksè District contributed to a slight decline in the Provincial area irrigated by minor irrigation works.

Provincial financial settlement.

39. The finance of the year 1910-11 was ostensibly regulated by the terms of the settlement of 1907, but variations in the amount of the assignment from Imperial to Provincial Revenues had been sanctioned from time to time subsequently to 1907, and had the effect of raising the assignment in the year of report to one hundred and thirty-three lakhs of rupees, this figure being greater by more than twenty-four lakhs than the assignment made in 1909-10, and no less than forty-two and a quarter lakhs greater than the standard assignment anticipated in 1907. There was thus a large deviation from the figures fixed at the settlement. Since the close of the year further changes have been introduced, affecting the principles on which the settlement is based.

Gross Revenue and Expenditure.

40. Imperial receipts advanced by a few lakhs only, to three hundred and ninety-three lakhs of rupees, and Provincial receipts by some twenty, to four hundred and eighty-eight lakhs. The Provincial advance was apparent only, *vide* paragraph 48 *infra*. Imperial expenditure rose by five, to seventy-five lakhs of rupees, and Provincial by twenty-six, to four hundred and sixty-nine lakhs. The income and outgoings of the District and District Cess Funds varied little from the figures of 1909-10.

Land Revenue.

41. The aggregate demand under the various heads of Land Revenue for the agricultural year 1910-11, as shown in the departmental books, rose by three lakhs only, against an improvement in 1909-10 of twelve lakhs over the figures of the preceding year. The demand from land revenue proper rose by one-third of a lakh only. The significance of this apparent cessation in the growth of the chief source of revenue has been examined in paragraph 6 above. The demand from capitation tax and from the household tax, or *thathameda*, increased, as did the receipts from fisheries and miscellaneous sources of land revenue.

Customs.

42. The net revenue of the Rangoon Custom House rose by more than twenty-eight lakhs, the improvement accompanying larger shipments of rice to Europe and higher tariff rates. Customs receipts and charges at subordinate ports varied little from the figures of 1909-10.

Salt.

43. The administrative record of the year was mainly one of preparation for the organization of the salt industry on the lines laid down by the Imperial Government. The condition of the local industry was far from prosperous. The number of licenses fell, the output of salt again declined largely, and the average output per vessel diminished. The rainfall was adverse to the processes of the industry, and foreign salt is gaining in popularity, even for the purpose of fish-curing. The collections of revenue from locally-made salt fell, the decline being relatively greater in the districts under direct taxation, where a bad season immediately affects the revenue. The quantity of salt imported in the calendar year 1910 rose largely, the increase being attributable wholly to German sources of supply. The figures of consumption show a slight decline, due entirely to the

reduced local supply, but the foreign kind easily replaces local salt and the check in consumption is probably temporary.

Excise.

44. The net *Excise* receipts declined by several lakhs, the diminution being shared between Opium and Excise. The Opium figures reflect the smaller sales from the shops and testify to the administrative success of the policy of rigorously scrutinizing the amount taken by each consumer. The revenue derived by the State from opium has fallen by nearly nine lakhs of rupees in the last quinquennium, and sales from the shops have declined by seventeen thousand seers.* These figures indicate how much has been accomplished, at the cost of considerable loss of revenue, in the direction of controlling and restricting the consumption of licit opium. Operations against the smuggling of opium continued to be energetically pursued and it is believed that very little shop opium is now available for illicit sale, whilst the measures taken by the Provincial Government of Yünnan in pursuance of the Chinese policy of prohibition have stopped smuggling from that direction. Unfortunately it seems certain that large consignments of Bengal Excise opium are still systematically brought from India into Burma.

The enhancement at the beginning of 1910 of the Customs duty on ordinary spirits made bidders at the excise auction-sales uncertain what the effect on consumption would be, and the fees obtained from licenses for the vend of foreign liquors and Burma-made foreign spirit fell largely. The enhanced rate of duty on imported liquor affords a strong inducement to surreptitious distillation, and illicit spirit is believed to find its way to the liquor shops to be sold as foreign liquor. Proposals in the direction of supervising these shops more closely are being drawn up. The Contract Distillery system for the supply of country spirit was extended, but is still not working on an entirely satisfactory footing. The most serious feature of the year was the spread of the morphia and cocaine habits. Seizures of both have enormously increased in recent years but, in spite of this, cocaine has taken a firm hold of all the districts in the Pegu and Irrawaddy Divisions.

Stamps.

45. The receipts of the year showed a marked improvement, mostly accruing under the head of Non-Judicial stamps, and the total revenue was less than one and a half lakhs short of the record figure of 1907-08. The recovery under Court-Fee stamps was small, but an amelioration in financial conditions is more slowly reflected in the volume of litigation than in the growth of those mercantile transactions which call for the use of Non-Judicial stamps, and the smaller recovery was therefore natural. Receipts from the sale of inland bills-of-exchange and Special Adhesive stamps rose, and the growth of speculation in the shares of joint stock companies in Rangoon accounts for a marked increase in the sale of Share-transfer stamps.

Assessed Taxes.

46. The net collections showed a steady, if slow, increase, and payments of income-tax seem to have been made without undue difficulty. There was an increase in the employment of coercive measures, but the issue of process depends largely on the idiosyncrasy of the collecting authority, and the percentage of petitions for reduction of the original assessment diminished. The number of persons assessed upon salaries and annuities received from Government rose.

* One seer = 2 $\frac{2}{85}$ lbs.

Receipts from the tax upon profits of Companies were practically stationary, in spite of the large amount of capital which has been subscribed to Companies in recent years. The tax on income from Other Sources has not yet recovered to the level of 1908-09, and nearly every district report is stated to attribute the depression under this head to the winding up of their businesses by the Madrasi money-lenders.

Forests.

47. The revenue from Forests rose largely, exceeding a crore of rupees by five lakhs, but the advance was due to exceptional causes. The expenditure also rose considerably, and on this side—as the enhancements occurred in recurrent charges—future years are not likely to show much diminution. The Department nevertheless earned a net profit of sixty-six lakhs of rupees.

Provincial Revenue and Finance.

48. The total Provincial receipts, as shown in the Financial Accounts, rose by some twenty lakhs of rupees, almost the whole of the increase appearing in the *Land Revenue* head, but the improvement was apparent only, being due to the additional assignment, mentioned in paragraph 39 above, of more than twenty-four lakhs from Imperial Revenues. The advance of twenty-six lakhs in Provincial charges was due mainly to a contribution of fifteen lakhs to the Rangoon Port Trust, and Police charges also rose considerably.

Local Funds.

49. The number of District Cess Funds in Lower and of District Funds in Upper Burma remained the same as in 1909-10. With the exception of one Fund, all ended the year in a condition of solvency. The income of the former class of funds rose, whilst their expenditure declined. In the Upper Province both the receipts and expenditure of District Funds decreased. The number of Town Funds rose by one, to seventeen. The income and expenditure of the Moulmein Port Fund fell noticeably, but the Fund had an adequate closing balance at the end of the year.

Municipal Finance.

50. Although there was a substantial increment in the ordinary revenue of the Municipality of Rangoon, the ordinary expenditure showed a larger increase. The total debt, which expanded by more than twenty lakhs during the year, now approaches two hundred lakhs of rupees. The debt charge and the incidence of taxation are high. The Town Lands Reclamation Fund has reached the limit of its borrowing powers, and it was decided at the close of the year to curtail works. The resumption of reclamation measures on a large scale must wait upon a revived demand for land in Rangoon, unless it is found, from the results of an enquiry now in progress, that higher rentals can be charged for reclaimed land. The aggregate income and expenditure of the smaller Municipalities rose during the year.

Note circulation.

51. If the last day of each of the financial years 1909-10 and 1910-11 is selected for the purpose of comparison, it appears that the number of Government currency notes in circulation advanced in the later year by 29 per cent. in number and thirteen per cent. in value, most denominations showing an increase. The legislation rendering encashable at any Currency Office notes of the value of ten and five rupees led to a large increase in the number of those notes in circulation, and it is clear that the use of notes is rapidly extending.

Births and Deaths.

52. The statistics of the rates of birth and death require to be received with caution, partly because they are based on the census figures of 1901, now a decade old, partly because it is impossible to supervise the record so closely as to preclude the possibility of error, and partly because the registration of vital statistics is not enforced in numerous areas. The deduced general birth-rate rose fractionally, both rural and urban areas showing an increase. The general death-rate fell considerably. The infantile mortality remained, however, extremely high: the Provincial figure was exceeded only by that of the Central Provinces. Here again, however, there is an unascertainable amount of error in the figures, as is pointed out in paragraph 187 of Part II of this Report. From the point of view of disease, the year was favourable; cholera was much less prevalent, the mortality from dysentery and allied diseases diminished, and the tale of deaths from plague showed a slight increase only. Experience led to the abandonment during the year of some of the measures which had been employed against plague in previous years, notably the disinfection of dwellings and the treatment of houses with earth-oil. Among the measures that remained in force were the evacuation of villages, where circumstances allowed: inoculation, whenever accepted by the individual: and reduction of the rat harbourage and food supply. The rate of mortality from fevers in the Upper Province was above the quinquennial average, though lower than the figure for the preceding year, but there is a tendency to classify under *Fever* in the original record all deaths except those which terminate one or other of a few specific complaints, such as small-pox or cholera: this may vitiate the conclusion that the figures would ordinarily suggest. A Provincial Committee was appointed to investigate the local prevalence of malaria, and an officer of the Indian Medical Service was placed on special duty to aid the Committee. Experiments were carried out with certain fish which are believed to devour the larvæ of the anopheles mosquito. There was a noteworthy advance in the quantity of quinine sold. The disease known as 'Yaws' (framboesia) was the subject of a special enquiry. Beri-beri was less prevalent in the light-houses. The Experimental Laboratory at Maymyo was closed towards the end of the year.

Medical Relief.

53. Nine new institutions were opened, bringing the total number to 259. The year will be memorable in the history of the medical administration of the Province, since it witnessed the opening of the new General Hospital at Rangoon, one of the finest edifices in the East. Apart from the Rangoon Hospital, lack of funds has in recent years stood in the way of much being done in the construction and equipment of medical buildings, and this is all the more to be regretted as the increase in the number of operations performed and of total attendances in recent years shows that there is a growing demand for medical relief. The record of the year's work was one of steady progress. The fact that fifty-three per cent. of the whole number of patients treated were Burmese is an indication that Government hospitals have in large measure won the confidence of the people. There was an increase in the number of female outdoor patients. Of special diseases, malaria contributed most patients. Diseases of the eye were treated in more than one hundred thousand cases, and the marked rise in the annual figure indicates the extent to which the people have abandoned indigenous methods. There were no changes in the

various medical cadres, except in that of Civil Assistant Surgeon, in which two new appointments were created, and of Sub-Assistant Surgeon, in which four appointments were abolished. Proposals for improving the rates of pay of the latter class of officer were sanctioned after the close of the year. The Burma Government Medical School passed out as Sub-Assistant Surgeons its first contingent of students. Steady progress was made at the Laboratory attached to the General Hospital, Rangoon. The administration of the two Lunatic Asylums—at Rangoon and Minbu—was uneventful, but the lunatic population is growing and measures had to be taken to prevent overcrowding.

Sanitation.

54. More than forty-five lakhs of rupees were spent on Civil sanitary works, but this figure, and the ratio of expenditure on sanitary measures to total income, were alike smaller than in 1909. Funds were granted for the supply of water to Minbu Town, and schemes to supply Pegu, Mandalay, Meiktila and Yamèthin have been prepared but await sanction. Those for Pegu and Mandalay involve large expenditure. Improvements to the supply at Pyinmana, Yandoon, Ma-ubin, Thazi and Maymyo are in contemplation. Tube-wells were sunk in several places. The reclamation of the site of Pyapôn Town by means of dredging was a noteworthy feature of the year's work, and the success of the experiment may have far-reaching effect on urban conditions in the Delta. Drainage works were undertaken at Henzada, Bassein and Mandalay.

Vaccination.

55. The area under vaccination remained unaltered during the year 1910-11, which concluded a triennial period. A comparison of the results obtained discloses a large falling off in the later triennium in the number of vaccinations performed and a large increase in expenditure, accompanying growing establishments. The average cost of each vaccination has accordingly advanced steadily. The average outturn of work per vaccinator in the year of this report fell below the figure of each of the two preceding years. To some extent the diminution is attributed to a closer supervision of the vaccinators' returns of operations performed, which in earlier years were admittedly frequently and often grossly falsified: but, when allowance has been made for this, it is considered that there has not been in recent years the increase in efficiency which was to be expected from the many additional appointments of Native Superintendent created since 1906-07 and from the growth in expenditure. The practice of inoculation was reported in 1910-11 from several districts, and in some cases outbreaks of small-pox were traced to the visits of inoculators: the Act for the Prohibition of Inoculation is in force in two Lower Burma districts only. The Vaccine Depôt at Meiktila was maintained in a state of efficiency during the year.

Education.

56. The number of Public Institutions, that is, the aggregate of Colleges, Special schools, and Primary and Secondary general schools, had advanced slightly in 1909-10. A decline followed in the year of this report, an increase in the number of Secondary schools both for boys and girls failing to counterbalance a large decrease in the number of Primary schools of each kind. In the earlier year there had been a marked decline in the number of registered Vernacular Primary boys' schools and in the number of pupils under instruction in such schools, and the decline continued—and even more noticeably—in the year

of report. It is attributed in the main to the reduction of grants necessitated by the financial stringency from which the Province has been suffering. The number of private institutions had increased largely in 1909-10, and again increased in 1910-11, but whilst the number of pupils in such institutions rose slightly in the earlier year it fell slightly in the year of report. It is, however, pointed out that the figures of private institutions are not reliable. Against this decline in the use made by the people of the facilities afforded by supervised institutions for acquiring the elements of education is to be set an expansion in the sphere of secondary education, and particularly vernacular secondary education. Education also continued to expand at the two colleges—the Rangoon College and the Baptist College—and a noteworthy feature of the Departmental report is the statement that the majority of College students are Burmese. The number attending the Government School of Engineering at Insein for the second year in succession decreased. It is possible that, when the full effects of the reorganisation of 1909-10 are in operation, the school will regain popularity, but the majority of the pupils are Indians, and Burmans do not appear to be attracted by the conditions of service in and the emoluments offered by the Public Works Department. This is all the more to be regretted as the Burman has a natural aptitude for certain branches of engineering work. The number of female pupils in public institutions rose in 1910-11, against a decline in the preceding year, a slight decrease in the number of scholars in Primary being more than counterbalanced by an increase in the number in Secondary schools. Statistics of the education of Europeans show a normal advance, the attendance in Primary schools alone declining. The majority of the pupils are in schools at Rangoon, Moulmein, Mandalay or Maymyo. The number of students in Normal schools, after rising in 1909-10, fell in the year of report; the conditions of the curriculum and the requirements of the inspecting staff are receiving special consideration. The total expenditure on education rose by nearly a lakh of rupees, but if expenditure on Survey schools, medical education, and educational buildings be excluded, the outlay was more than half a lakh less than in 1909-10. A scheme was prepared for rebuilding the Rangoon College. The revision of the Code for European Schools was completed. Efforts were made to give effect to the orders allowing religious instruction to be imparted in Government, Municipal and Local Fund schools, and during the year some seventy institutions availed themselves of the concession. The kind of religious teaching given was usually Buddhist; Christian, Hindu, and Mahomedan parents as a rule preferred to make their own arrangements, apart from the schools. It is too early yet to assess the effect of the instruction. The number of appointments in the Indian Educational Service was increased by two, a Professorship of Physics being created at the Rangoon College and the Professorship of English transferred from the Provincial to the Indian Educational Service. A Committee was appointed for the revision of Vernacular Readers.

Literature and Presses.

57. There was a large increase in the number of dramatic publications registered and apprehension has been expressed that the tone of these publications, many of which perpetuate the indecencies of the Burmese comic drama, may have a harmful effect upon the minds of the readers. The number of presses rose to more than one hundred, the majority being installed in Rangoon and Mandalay.

58. The annual Provincial Art and Handicrafts Exhibition was held successfully at Rangoon, and a similar exhibition at Bassein. An attempt is being made to form a local Art Committee at Pagan, in order to foster the lacquer industry. The proposal to appoint an expert as Provincial Art Officer was in abeyance. Arts and Sciences.

59. A grant-in-aid from the Government of India made it possible to spend larger sums on the conservation of monuments of historical and antiquarian interest. Further discoveries of inscriptions in the archaic Pyu language were made, and Mr. C. O. Blagden deciphered the Pyu face of the Myazedi inscription, which exhibits on one of its four faces the earliest lithic record in the Burmese character as yet found in Burma. Archæology.

BURMA SECRETARIAT, *the 9th January* 1912.

PART II.

NOTE.—The departmental reports and other references, on which this *Report on the Administration of Burma* is based are noted at the beginning of each chapter. The departmental reports do not all cover the same period. The Reports on the Administration of Civil and Criminal Justice, the Police, Prisons, the Registration Department, the Salt Revenue, the measures adopted for the extermination of Wild Animals and Poisonous Snakes, Lunatic Asylums, the Report of the Chemical Examiner and Bacteriologist, the Report on the working of the Government Medical School, Rangoon, the Resolution on the Reports on Village Administration in Burma, and the Resolution on the Reports on the working of the Indian Factories Act in Lower Burma, deal with events which took place within the calendar year 1910; the Shan States, Chin Hills and the North-Eastern Frontier Reports, the Land Revenue, Land Records, and Forest Administration Reports, the Season and Crop Report, the Report on the working of the Co-operative Credit Societies Act and the Report of the Department of Agriculture are concerned with the agricultural year from the 1st July 1910 to the close of June 1911. All other reports cover the twelve months of the official or financial year that ended on the 31st March 1911.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

REFERENCES:—

Report on the Administration of the Shan and Karenni States for the year 1910-11.
Report on the Administration of the Chin Hills for the year 1910-11.
Report on the Administration of the North-Eastern Frontier for the year 1910-11.
Season and Crop Report of Burma for the year ending the 30th June 1911.
Land Records Administration Report of Burma for the year ending the 30th June 1911.

Physical Features of the Country, Area, Climate and Chief Staples.

POLITICAL.

Historical Summary.

For information on the foregoing subjects, a reference should be made to paragraphs 1 to 19 of the *Report on the Administration of Burma* for the year 1901-02.

Form of Administration.

For information on this subject, a reference should be made to paragraphs 1 to 20 of the *Report on the Administration of Burma* for the year 1907-08.

Character of Land Tenures: System of Survey and Settlements.

For information as to the character of the land tenures, a reference should be made to paragraphs 39 to 47 of the *Report on the Administration of Burma* for the year 1901-02.

For information as to the system of Survey and Revenue Settlement, a reference should be made to paragraphs 1 to 8 of the *Report on the Administration of Burma* for the year 1908-09.

Civil Divisions of British Territory

Details of the last Census Tribes and Languages.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

For information on the foregoing subjects, a reference should be made to paragraphs 56 to 75 of the *Report on the Administration of Burma* for the year 1901-02.

Changes in the Administration.

The Lieutenant-Governor.

1. The Honourable Sir Herbert Thirkell White, K.C.I.E., I.C.S., made over, and the Honourable Sir Harvey Adamson, M.A., LL.D., KT., K.C.S.I., I.C.S., received, charge of the office of Lieutenant-Governor of Burma on the 19th of May 1910.

Administrative territorial units.

2. The Mogaung Subdivision of the Myitkyina District was divided into two subdivisions, the Mogaung and Kamaing Subdivisions: the Myedè (Allanmyo) Civil Subdivision of the Thayetmyo Civil District was divided into two Civil Townships, the Allanmyo and Thanbula Townships: and certain riverine lands were transferred from the Minbu to the Myingyan District. The headquarters of the Tapun Township of the Tharrawaddy District were transferred from Tapun to Nattalin; and of the Sheinmaga Township of the Shwebo District from Sheinmaga to Wetlet. The rearrangement of the Hanthawaddy and Pegu Districts was sanctioned at the close of the year.

Additions to and changes in the Administrative Staff.

3. The establishment of Registrars of the Chief Court of Lower Burma was reorganized through the substitution, for two appointments of Assistant Registrar, of the appointments of one Deputy Registrar, one Second Deputy Registrar, and three Assistant Registrars. One of the three appointments of Assistant Registrar is, however, provisional. The reorganization of the Provincial Civil Service, sanctioned in 1909-10, came into effect in the year of report. A scale of pay for officers of the Provincial Forest Service, varying with the length of service, was introduced towards the close of the year, and enhances the emoluments of existing incumbents. Two new appointments in the Indian Educational Service were created and one appointment in the Provincial Educational Service was abolished, *vide* Chapter VII. Other important reorganizations will be found mentioned *infra*, in the sections appropriate to the Department concerned.

Relations with Tributary States and Frontier Affairs.

(*i*) *Shan and Karenni States.*

[*Southern Shan States*: 38 *States, area* 36,154 *square miles, population* 833,701, *tribute Rs.* 2,73,550; *Karenni*: *five States, area* 4,280 *square miles, population* 64,729, *tribute Rs.* 5,350; *Northern Shan States*: *five States, area* 17,135 *square miles, population* 475,585, *tribute Rs.* 1,54,500; *Möng Mit*: *area* 3,561 *square miles, population* 44,708, *tribute Rs.* 20,000; *Hsawnghsup* (*Thaungthut*): *area* 840 *square miles, population* 7,693, *tribute Rs.* 400; *Singkaling Hkamti* (*Zingalein Kanti*): *area* 2,000 *square miles, population* 3,850, *tribute Rs.* 100; *Khämti Long* (*Kanti-gyi*) *or Bhor Kämpti*; *area* 973 *square miles, population* (*approximate*) 11,000, *tribute Nil.*]

The Southern Shan States.

4. The States were peaceful during the year 1910-11 and, with the exceptions of Yawnghwe, Möng Nawng, Möng Pawn, Möng Nai and Mawkmai, their internal economy gave little cause for anxiety. The most important event on the northern border was the subjugation by the Chinese authorities of Möng Sè, a sub-State of the Hsip Hsawng Panna. The Kēngtūng State preserved strict neutrality, but extended asylum, on terms, to several refugees from the sub-State. To recover the cost of the Chinese garrison, a tax is now levied in Möng Sè on loads of goods, and the ferries on the Mekhong have been taken over by the Chinese authorities and farmed out. Intercourse between the States

and the adjoining jurisdictions of Northern Siam declined, partly owing to the insecurity of the roads, and partly to visitors to Siam being subjected to taxation. The latter grievance has recently been removed and at a frontier meeting between the Political Officers of the border States, the Siamese officials, and the *Sawbwa* of the Siamese State of Mehawnghsawn, simple rules were framed for the better keeping of the peace along the marches. The sanctioned strength of the Military Police Battalion which garrisons the States remained unaltered: a new post, Bampôn, was occupied during the year. The conduct of the Shan portion of the Battalion improved. There was no difficulty in obtaining recruits for the small force of Government Civil Police. The volume of crime diminished, the number of cases coming before the Courts of Political Officers and Chiefs declining from 917 to 858. Violent crimes, however, rose in number by twenty-four to sixty; six out of eighteen robberies are believed to have been committed by the members of one gang, which has been dispersed. There were fewer thefts of cattle and the number of ordinary thefts was stationary. The number of Civil suits declined from 772 to 687, in large measure because of the removal of petty traders from Taunggyi to the new railway line. The rainfall was timely and well distributed: the rice crop was good everywhere, and food stocks rose again to the normal amount. The rules for the prevention of cattle disease are stated to have done some good: there was no widespread epidemic of rinderpest and the health of agricultural stock improved. The area of Reserved Forest land stood at 1,518 square miles; some additional small areas are proposed for reservation. The arrangements for working the teak forests remained unaltered: 12,428 logs reached revenue stations, as against 11,835 in the preceding year, and the revenue from forests for the first time since 1905-06 showed a surplus over expenditure, rising from Rs. 63,290 to Rs. 91,112, whilst expenditure declined from Rs. 87,148 to Rs. 85,833. Two mines were worked during the year, but smelting operations declined, as the ore can now be sold to the Burma Mines Company for conversion outside the States at Mandalay. Nearly one hundred thousand viss* of dressed ore was exported to Burma from the two mines. Prospecting was actively carried on in many localities, thirteen new licenses being issued during the year. One new station for the registration of trade was opened at Lungyaw. The figures of the trade with Burma will be found recorded in Chapter IV under the title *Trade*. The survey of the Southern Shan States railway was completed as far as the proposed terminus at Yawnghwe. The expenditure on ordinary public works from Government funds fell slightly to Rs. 3,41,000: two-thirds of the whole were devoted to the upkeep of the Thazi-Taunggyi road. The States were, however, able to contribute one and a half lakhs of rupees, as against Rs. 1,21,000 in 1909-10. The revenues of the States rose from Rs. 9,42,000 to Rs. 9,54,000. There are thirteen hospitals and dispensaries in the States, four of the number belonging to the Military Police Department and one being a Public Works institution. The aggregate number of outdoor patients rose from 48,001 to 52,187, largely on account of an influx of patients at the Kalaw Hospital on the line of the new railway; indoor patients increased from 1,450 to 1,580, many more cases being treated at the Military Police Hospitals. Vaccinations rose in the Cis-Salween States by some 1,500. The number of registered public schools again declined, from 92 to 78; the pupils in the school for the sons of Shan Chiefs numbered 79 against 75 in the year 1909-10. The two Town Funds of Taunggyi and Loilem closed the year in a state of solvency. A non-synchronous census was taken, the enumeration lasting from December to March.

Karenni.

5. The border was peaceful during the year. The affairs of Kantarawadi, the chief of the five small States of Karenni, continued to be directed by a Council. Every branch of the administration in this State was reviewed and improvements, where possible, effected. Particular encouragement was offered to schemes for extending the area under cultivation: the failure in recent years of the trade in teak timber had made it vitally necessary to search for alternative means of livelihood. In the year of report the cultivated area and the outturn of grain

* A viss is 3·60 pounds.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

rose and prices fell, though the rainfall was less than usual. The output of cutch and of lac increased. The Southern Shan States Syndicate continued to develop their concession at Mawchi in the Bawla-ke State. Of the five States, Kantarawadi spent nearly half a lakh of rupees on public works, against a sum uncertain in amount but certainly small in 1909-10. There was no serious cattle disease; the public health was generally good; and the condition of the people showed a marked advance. The improvement in Kantarawadi was particularly noteworthy; at the beginning of the year the Treasury was empty, the collection of revenue had fallen into arrears, the State was in debt to the extent of some Rs. 18,000, and there were overdue payments for public works. The Council closed the year with the collection of revenue up to date, all debts had been discharged, and there was a cash balance of Rs. 21,000. A census was taken during the year and the preliminary returns, which are shown in the head-note to this section, disclose a much higher population than was expected.

The Northern Shan States.

6. The peace of the border was seriously disturbed by a rising of Sinwa Kachins in the State of North Hsenwi. They obtained the assistance of Kachins from the Chinese side, stockaded themselves, and it was necessary to employ Military Police to dislodge them. A second disturbance was caused by a Kachin fanatic, who in the end was fatally shot in resisting arrest. These occurrences are referred to a generally existing spirit of unrest which has manifested itself in the Chinese Shan States. The annual meeting of Political Officers of the States with officials from the Bhamo District and from the Chinese Sub-Prefecture of Têng-yüeh resulted in the settlement of many cases, but important questions of frontier policy remained undetermined. The Chinese authorities demanded increasing efficiency during the year in the administration of their charges by the transfrontier *Sawbwas*, and the suppression of the cultivation of the poppy was followed by rigorous measures taken against salt smuggling. In the unadministered Wa States the year was marked by the occurrence of some inter-village feuds, in one of which the *Sawbwa* of Manglün unwarrantably interfered, bringing upon himself the censure of Government. With the exception of Manglün and North Hsenwi—where the conduct of the *Sawbwa* made it necessary for Government to deprive him of his titular distinction and otherwise punish him—the activities of the Chiefs were directed aright during the year. The lastnamed State was, in the event, reorganized, with the concurrence of the *Sawbwa*. All the States underwent a census, the operations being non-synchronous in four, whilst in portions of Manglün the population was estimated and in the remainder no census was attempted. The strength of the Military Police Battalion was increased by one company. The volume of crime dealt with by the Courts fell from 812 cases in 1909-10 to 723 in the year of report, but the decline occurred in the less serious categories and violent crimes increased in number by six to twenty-six. The number of Civil cases diminished from 521 to 505. A heavier rainfall was received and crops were generally excellent. There was no addition to the area of Reserved Forest land, but some fresh reservations have been proposed. The revenue on teak timber extracted by the Bombay Burma Trading Corporation, Limited, rose by Rs. 21,000, to more than half a lakh of rupees Great activity was displayed by the Burma Mines Company in developing their mines at Bawdwin. An account of the trade of the States is given in Chapter IV, *sub voce* Trade. The total expenditure on public works from Provincial funds amounted, as in 1909-10, to less than half a lakh of rupees: but the States spent nearly $5\frac{1}{2}$ lakhs for these purposes, as compared with five lakhs in the previous year, Tawngpeng alone spending nearly three lakhs on the construction of a cart road from Kyauk-mè to Namhsan. In spite of the prevalence of small-pox among the people and of virulent outbreaks of disease among the cattle, prosperity and the standard of living rose everywhere. The State of Hsipaw showed an increase of gross revenue amounting to Rs. 15,000, and the aggregate revenue of the States expanded by more than a quarter of a lakh, to $10\frac{3}{4}$ lakhs of rupees. There are eight hospitals and dispensaries, one of the number belonging to the Military Police, one to the Jail, and one to the Railways Department. The number of patients treated increased, and vaccinations rose slightly.

Five new schools under Government inspection were opened. The expenditure of the Lashio Town Fund exceeded the receipts by Rs. 5,000, but the closing balance stood at an adequate figure.

Möng Mit.

7. The year was uneventful. There was little crime, the rainfall was good and gave abundant crops; the financial position of the State remained sound, and the revenue rose by Rs. 12,000, to more than one and a half lakhs of rupees.

Thaungthut and Zingalein Kanti.

8. The two small Shan States which fall within the jurisdiction of the Deputy Commissioner of the Upper Chindwin District enjoyed a prosperous year, which was uneventful save for a raid, accompanied with murder, perpetrated by an unadministered village. Three of the raiders were delivered up and judicially punished, but three were still at large at the end of the year of report.

(*ii*) *The Chin Hills.*

[*The Chin Hills proper: area (approximately)* 8,000 *square miles, population* 87,189; *the Pakôkku Hill Tracts: area (approximately)* 2,250 *square miles, population* 13,116; *Northern Arakan: area* 5,233 *square miles, population* 20,682; *and tracts in the Upper Chindwin, Akyab, and Kyaukpyu Districts.*]

Relations with external areas.

9. In the administrative charge known as the Chin Hills, that is, in the Chin Hills proper, relations with surrounding authorities and tribes, namely, with Burma, Lushai, Manipur, and the Chins in unadministered territory, were friendly. A joint Police Expedition, one contingent of which marched from the Naga Hill Tracts in the Province of Eastern Bengal and Assam, and the other from the Upper Chindwin District, proceeded, after uniting, to the village of Makware in unadministered territory, and inflicted punishment on it for a raid made in the preceding year upon Naungmo village in the Homalin Subdivision of the Upper Chindwin District. Relations between the Chins of the Pakôkku Hill Tracts and those of unadministered territory were uneventful. In the Arakan Hill Tracts, with one exception—and that was at the date on which the report was written doubtful—no raids were committed by trans-frontier people on administered villages. Towards the close of the year the embargo which had been placed, as a punishment, on the supply of salt to the Shandu tribe was removed, in order to enable salt to pass through the Shandu country to the Lushai Hills.

Internal affairs: the Chin Hills proper.

10. The conduct of the tribes in the Chin Hills was satisfactory, and it is reported that the Chins rarely now take the law into their own hands, but instead refer matters to their Chiefs or to the Political Officers. The number of prosecutions under the Indian Penal Code declined, as did the number of Civil suits instituted. The reason in the latter case is said to be the greater activity displayed by the Chiefs in deciding such matters. The cultivation of wheat continued, but the crop is still equivalent to a moiety only of the amount which the Chin Hills Military Police Battalion requires. The rate of tribute was raised during the year from two to three rupees per house—the rate obtaining in the adjoining Lushai and Manipur Hill Tracts—and collection was effected without difficulty. The Government and inter-village roads were maintained. The experiment of enlisting Chins in the Military Police Battalion is stated to have been successful. The force of Civil Police which was raised in October 1907 to relieve the Military Police of some semi-military duties was disbanded during the year. The desire for education is obtaining a hold on the tribes, and the two Government schools in the Chin Hills were well attended, as were the schools of the American Baptist Mission.

The Upper Chindwin District: the Pakôkku Hill Tracts: the Arakan Hill Tracts.

11. The only event of note in the affairs of the Chins of the Upper Chindwin District was the despatch, already mentioned, of a column to Makware village. The year was also uneventful in the Pakôkku Hill Tracts. A census of the administered regions was taken, and the population of the unadministered villages was estimated. Formal proposals for the reservation of areas of forest land at the headwaters of important streams are foreshadowed. No noteworthy event occurred during the year in the Arakan Hill Tracts, nor in the areas inhabited by Chins in the Akyab and Kyaukpyu Districts.

(iii) The Kachin Hills.

[*Tracts in the Myitkyina, Bhamo and Katha Districts.*]

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY. The Chinese border.

12. Relations with trans-frontier tribes were satisfactory during the year. There were no raids on the Myitkyina border, and one only—and that of a petty nature—occurred on the Bhamo border. The usual frontier meetings between Chinese and British officials were held, and at the Myitkyina meeting, which was attended with more success than the Bhamo meeting, several pending cases were satisfactorily settled. The leniency with which offenders on the Chinese side are treated is believed to encourage crime. The price of Chinese opium has risen in the past three years from fifteen to fifty rupees per viss of 3·60 pounds, owing to the vigorous efforts made by the Chinese authorities in Yünnan to suppress the cultivation of the poppy, and the much enhanced prices realized for the drug, coupled with the restrictions on cultivation in China, have encouraged planting on the British side of the frontier, both by residents and by immigrants from China. Restrictions on the cultivation of the plant within the British border are recommended by local officers.

Unadministered territory.

13. The chief incident in the administration of the North-Eastern Frontier was the despatch of two expeditions to the unadministered territory lying to the north of the Myitkyina District. One expedition visited the region east of the 'Nmai-kha river, proceeding to Hpimaw. The other marched to the Shan State of Hkamti Lōng. The attitude of the tribes visited was friendly, and the arrangements for the expeditions were successfully carried out. A Military Police post was established at Lauhkaung near the 'Nmai-kha and a mule track and telegraph line were constructed from the post to Seniku, thus linking it up with Myitkyina. Elsewhere along the line of unadministered territory the year was in the main uneventful. In the Jade Mines region, the people of 'Ngan in the Hukong valley instigated a case of incendiarism at Laban village, the crime being a further development of an inveterate feud. In the Sadôn region, it had been hoped that the feud between the village of Atankawng in unadministered territory and the Sadan clan near Seniku was settled, but Tingaw village received threats from Atankawng during the year, and there is the possibility of a revival of the vendetta. Slaves continue to come into administered territory from the Hukong valley.

Internal affairs.

14. The number of Criminal cases instituted during the year was, in the Bhamo District, the same as in 1909-10. In the Myitkyina District, the number fell from 145 to 76, chiefly owing to the institution of fewer cases of kidnapping, slavery, and theft: of fewer cases under sections 17 (disputes likely to cause a breach of the peace) and 31 of the Kachin Hill Tribes Regulation, and under the Opium Act. In Katha, an increase in the number of cases falling under section 13 (*e*) of the Regulation (disobedience of an order to quit an isolated hut), accounts for much of the increase from six to 24 cases, and was due to the Civil Officer visiting a larger number of villages than in the earlier year. Violent crimes, nearly all of them murders, were more numerous in the Bhamo and Myitkyina Districts, whilst, as in 1909-10, the Kachin Tracts of the Katha District were free from violent crime, of whatever description. The number of Civil cases instituted varied little in any of the three districts from the figure of the earlier year. Tribute was collected without difficulty, and rose by some three thousand rupees, owing to an increase in the Bhamo District, where the enhanced rate of five rupees was levied on villagers established for more than five years in the plains. Proposals for reserving areas of forest land within Kachin tracts were framed, and the receipts of the Forest Department from rubber produced in the unadministered tracts rose by five thousand rupees. The season was a bad one for the jade industry, both the amount extracted and its value decreasing: the Nanyaseik Ruby Mines remained deserted: and the Burma Gold Dredging Company, Limited, won less gold, but have still to attack the

upper part of their concession on the 'Nmai-kha. The work done by Kachin headmen, with the exception of the headman of the Jade Mines, was good, and inter-village tracks were well maintained.

Condition of the People.

General.

15. Neither in Lower nor in Upper Burma was the agricultural year 1910-11 so prosperous as its predecessor. In Lower Burma, however, the poor harvest left the agriculturist no worse off than in the preceding year, the reduced outturn being offset by higher prices. The agricultural labourer who is paid a stipulated quantity of rice was on the whole better off than in 1909-10, if his wage be measured in money. Several districts, especially Toungoo and Pyapôn, report that the supply of labour was insufficient: this is, no doubt rightly, attributed to the good harvest in the Dry Zone in 1909-10 reducing the emigration of the following year. In the Thatôn and Mergui Districts the extension of rubber cultivation offers an increasing number of labourers' employment at remunerative wages. In the Dry Zone districts of Upper Burma the less prosperous year caused a change for the worse in the condition of the people. In the Yamèthin Subdivision wages fell by 25 per cent., and in Meiktila the bursting of the Nyaungyan-Minhla reservoir caused distress which was to some extent alleviated by the distribution of more than half a lakh of rupees in agricultural advances. In spite of heavy mortality from cattle disease, the numbers of agricultural stock in the Province rose.

Famine.

16. It was not necessary to take action under the Famine Code during the year. Local measures were sufficient to alleviate the distress caused by the partial failure of the *taungya** crops in the Tavoy District. In Thayetmyo signs of scarcity appeared in parts of the Allanmyo and Thanbula Townships, but licenses to work cutch were freely issued, the poorer cultivators obtained a livelihood by other means than agriculture, and there was no abnormal demand for labour on the works started, out of District Funds, in the regions where crop failures were most numerous. The completion of the Môn Canals irrigation system will place a large part of the Minbu District beyond the reach of famine. The *Programme of Famine Relief Works* was revised during the year.

* *Taungya*, shifting cultivation on hill-sides.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REFERENCES:—

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1911.
Land Records Administration Report of Burma for the year ending the 30th June 1911.
Agricultural Statistics of India, Volume I.

Realization of the Revenue.

Demand, remissions, collections, and outstandings.

17. The total demand from all heads of Land Revenue—that is to say, from land revenue proper, the capitation-tax in Lower Burma, *thathameda*,* the land rate, fisheries and miscellaneous receipts—rose in the year 1910-11 by three lakhs of rupees. Land revenue proper, with which this section is concerned—the other heads of land revenue will receive comment in Chapter V, *Revenue and Finance*—expanded by the inconsiderable amount of Rs. 33,777, the demand, excluding the amounts creditable to cess and irrigation, rising from a little over 260 lakhs (revised figures) in 1909-10 to less than 260½ lakhs of rupees. Large areas in the Delta were exempted from assessment on account of floods: there was no large increase due to Revenue Settlement: and in portions of Upper Burma unfavourable agricultural conditions prevailed during the greater part of the year. With the exception of the Hanthawaddy, Ma-ubin, and Mergui Districts, the assessed area in the districts of Lower Burma increased, but much larger remissions had to be granted than in the previous year. In Upper Burma, in the Magwe Division alone, the assessed area fell by almost 200,000 acres, and in the Meiktila Division there were further large decreases in the assessed area. Among conspicuous variations from the figures of the year 1909-10 may be mentioned a decline of one lakh and a half in the demand from the Hanthawaddy District, where the area affected by floods is reported to have amounted to 150,000 acres. In the Pegu District the lands laid waste by the breach of the Pagaing Embankment were restored to cultivation and the demand returned to its normal figure with an increase of nearly 2½ lakhs. Revision Settlement in the Kyaikto Subdivision of the Thatôn District accounts for an enhancement in the demand of more than half a lakh. In Upper Burma, Meiktila was the only district of the Dry Zone to show an increase of assessed area, and the demand rose by three-quarters of a lakh, a result ascribed to better supervision. Pakôkku, where highly-assessed crops were cultivated, and Minbu, where enhanced rates became payable under the Revision Settlement, were the only other Dry Zone districts in which the demand advanced. The demand from the Magwe District declined by nearly a lakh, and from Yamèthin by three-quarters of a lakh. In the irrigated regions there was an enhancement of demand in Shwebo of half a lakh, due to expansion outside the Canal area. Kyaukse suffered from floods and untimely rains and the assessed area and demand declined. In the region of the Northern Frontier, increases are recorded from all districts, the most notable being one of Rs. 30,206 in Katha. All the districts of the Arakan Seaboard reported increases of assessed area, and all except Kyaukpyu enhancements in the demand, Akyab recording an expansion of a quarter of a lakh. In the Thayetmyo District the season was unfavourable and there was a decline in the demand of nearly three-quarters of a lakh.

Over the whole Province remissions more than doubled, rising to above five lakhs: out of the districts of the Lower Province only six record smaller remissions than in the preceding year. Nearly 2½ lakhs were remitted in the Hanthawaddy District, mainly on account of floods, and the same reason led to the remission of nearly a lakh in Ma-ubin. In Upper Burma the largest remission

* *Thathameda*, the household-tax in Upper Burma.

was in the Meiktila District, the chief cause being the breach of the embankment of the Nyaungyan-Minhla reservoir. The collections of land revenue proper for the Province fell by more than 2½ lakhs of rupees, and outstandings amounted to Rs. 32,108, more than half as much again as in the previous year.

Revenue proceedings and coercive processes.

18. The returns of coercive processes include proceedings instituted for the recovery of any of the various kinds of Land Revenue. The amount of revenue for the realization of which application was made rose by three-quarters of a lakh, to 9¾ lakhs of rupees. Warrants of arrest increased by 1,566 to 8,985, and the number of persons actually arrested by 530 to 2787: the number of persons committed to jail rose from 37 to 69. Sales of moveable property declined, but sales of immoveables rose by 905 to 2,450.

Surveys.

Demarcation. Surveys by Imperial agency.

19. Apart from the demarcation of urban areas and fisheries, *vide infra*, no demarcation work was carried out in the year 1910-11. Numbers 10 and 11 Parties of the Survey of India Department continued the Topographical survey of parts of the Province, the regions dealt with being situated in the Bhamo, Katha, and Myitkyina Districts: in the Southern Shan States of Möng Pan and Mawkmai: and the Karen State of Kantarawadi. An area of 6,213 square miles was surveyed on the one-inch scale, and 188 square miles of Reserved Forest on the two-inch scale. The survey of the cantonment of Rangoon was completed. Trigonometrical operations were carried out by Number 15 Party in three parts of Burma. In the north, the Upper Irrawaddy Principal Triangulation Series was continued westwards, and a short base-line was selected and laid out at Bhamo: in the east, the Great Salween Principal Triangulation Series, which follows approximately the eastern boundary of the Province, was continued in that direction: and, lying between these two series, the Mawkmai Secondary Triangulation Series was completed. A site suitable for a base-line was also laid out at Prome. Other scientific operations of the year comprised the recording of pendulum observations, for the purpose of determining the force of gravity, at eleven stations: and the continuation of tidal operations at Rangoon and Moulmein. The Survey of India Training Camp completed the re-survey of 2,273 acres of cultivation in the Yamèthin District.

Surveys by Provincial agency: Extension and Revision surveys.

20. All the districts proposed for Revenue Settlement have now come under Supplementary survey, and yearly increments in the area under survey will result only from Extension surveys by local staffs. No operations of that kind were carried out by special establishments during the year closing with June 1911, but Revision surveys were conducted by special agency, under the control of the Superintendent of Land Records, in the Kyaukpyu and Mergui Districts, and the mapping and area work of the Revision surveys of the preceding year was completed in the Hanthawaddy and Yamèthin Districts. The area surveyed cadastrally in the Kyaukpyu and Mergui Districts was 63 square miles. During the year the Government of India sanctioned the entertainment on a temporary footing of special establishments proposed for the Revision survey of various areas which are beyond the capacity of the regular staff, but lack of funds prevented the organization of a party.

Town surveys. Fishery surveys. Surveys of leased areas.

21. Financial considerations similarly impeded the demarcation and survey of urban areas. In the Hanthawaddy District, Syriam Town was demarcated, as a preliminary to survey on a large scale. A portion of the town of Tavoy, in the district of the same name, was demarcated, as were three towns in the Katha District. These towns were subsequently surveyed, and the survey of Yamèthin Town continued. Forty-four fisheries in the Pegu and 37 in the Myaungmya District were demarcated and surveyed, and the maps of the Pegu fisheries are ready for the printer. The survey of leased areas (*pattas*) by special establishments covered 45,000 acres, against 127,000 acres in 1909-10. The larger figure

CHAP. II.—ADMINISTRATION OF THE LAND.

of the preceding year included, however, 80,000 acres which were surveyed for a special purpose not connected with agriculture, namely the winning of oil. The amount realized from fees in the year of report was Rs. 23,000, against Rs. 40,000 in the earlier year: the cost of the establishments entertained was hardly more than half of the receipts from fees, and the propriety of reducing the fees is under consideration. Surveys of this kind took place in nine districts only, all in Lower Burma. In the Arakan Division, leases are desired chiefly for the purpose of cultivating the ordinary crops. In the districts of the Tenasserim Division, they are wanted for the cultivation in the main of rubber, and the areas surveyed were extensive: in the Toungoo District, more than 10,000 acres were surveyed, and the areas surveyed in the Amherst, Mergui, and Thatôn Districts approached that high figure. From the Kyaukpyu District, where the surveyed area fell from 7,000 to 2,700 acres, it was reported that the diminished area of available waste and the discouragement of applications from non-agriculturists had contributed to the decline. From Tavoy, where the surveyed area also fell considerably, it was reported that the fear of a high assessment of land revenue on rubber plantations operated to deter applicants. The survey of the waste area in the Minbu District commanded by the new Môn Canals was revived, to be closed towards the termination of the year for the purpose of instituting further enquiries into the project.

Settlements.

Settlements completed.

22. Four Settlements were finished during the year, namely, the second circuit of the Thatôn District, the first circuit of the Hanthawaddy District—comprising what will shortly be the Syriam District—the Shwebo Canal area, and the Meiktila District. The report on the settlement, completed in 1909-10, of portions of the Pakôkku District was reviewed during the year, as were the reports of the other four settlements mentioned: all—with the exception of the report for Meiktila—are now before Government. The settlement of the first circuit of the Hanthawaddy District commenced the cycle of third settlements in Lower Burma, and was the first in the Lower Province in which crop measurements were taken over the whole settlement area for three years in succession. The Meiktila report introduces for the first time proposals for a fixed lump assessment in survey-blocks where the cultivation is poor and scanty.

Settlements in progress, or commenced during the year.

23. In the Myingyan District a second series of crop measurements was taken, the ordinary processes of work in the field continued, and the compilation of statistics commenced. Operations comprising the First Revision settlement of some, and the original settlement of other portions of the Amherst District were inaugurated. The settlement of the second circuit of the Hanthawaddy District—the Insein Subdivision—was commenced, and in the Myaungmya District a party began the third settlement of an area of 635 square miles. The second settlement of an area comprising the Toungoo District, together with the adjoining Pyinmana Subdivision of Yamèthin, began during the year.

Financial results and expenditure.

24. New rates were sanctioned in the Lower Chindwin District. The operations of settlement cost 3¼ lakhs, and the new rates are expected to add some Rs. 30,000 to the annual revenue demand. Including a share of the cost of the office of the Commissioner of Settlements, the total expenditure on settlements in the year of report was slightly less than four and a half lakhs of rupees, against 5¼ lakhs in 1909-10.

General remarks.

25. The inception of settlement operations in two new areas, the Bassein District and the Nyaunglebin Subdivision of the Pegu District, was sanctioned. In thirty-one out of thirty-seven districts the rates of land revenue have now been fixed by means of a Settlement. No new district was added to the settled

list in the year of report, and the number of parties remained at five. A consolidated set of Instructions for Land Revenue Settlements in Burma was issued, superseding the separate instructions for Upper and Lower Burma.

Land Records.

[*The figures stated in the first paragraph below include areas and receipts other than those dealt with above under the title* Realization of the Revenue.]

Area under Supplementary survey: rural areas.

26. The rural area under Supplementary survey rose by 1,206, to 49,418 square miles, owing to the introduction of survey into three townships of that portion of the Pakôkku District which recently underwent Revenue Settlement. The remainder of the settled area will come under Supplementary survey next year. The occupied area under Supplementary survey rose for the Province by two and a half per cent., but insufficient early rain in the Dry Zone districts resulted in land which is usually placed under the early-sown variety of sesamum being left fallow, and the cultivated area fell in consequence by some 24,000 acres. The area under assessment declined by nearly two hundred thousand acres, but the total assessment (including the cess on land revenue in Lower Burma) rose by more than two and a half lakhs of rupees. The increase is attributable, not to the introduction of Supplementary survey into the Pakôkku District, where new rates of land revenue were not notified until the close of the year, but mainly to new rates coming into force in the Minbu, Myaungmya, and Thatôn Districts. The increase in the Minbu District exceeded a lakh, and in Thatôn approached half a lakh of rupees. An increase of nearly a lakh in Shwebo is attributed to timely rainfall and to closer supervision. In the Meiktila District the assessment rose by more than half a lakh. There was a large increase in the Pegu District, following on favourable rain, but this was counterbalanced by decreases in the Yamèthin and Magwe assessments.

Urban areas.

27. Considerable progress was made in 1910-11 in the extension of Supplementary survey to towns: the urban area under Supplementary survey increased by seventeen, to 225 square miles, and the number of towns in which operations are carried out rose from 137 to 158. In the Hanthawaddy District work was extended to eight more towns, in Thatôn to two, in Prome to one, in Katha to three, and in the Pakôkku District to Pakôkku Town. Of the districts under Supplementary survey, there are still four, one in the Arakan Division and three in Upper Burma, where no towns are under survey, whilst in some towns the introduction of survey has been deferred pending final orders on the form of the Town Lands Roll. The assessed urban area increased by nearly 11,000 acres, but the figures are not free from doubt. The aggregate collection of Land Revenue and Rent rose by 1¼ lakhs approximately, to more than eight lakhs.

Cost of Supplementary survey.

28. Eleven more Inspectors of Land Records and 51 more Surveyors were entertained than in 1909-10. The establishments of the Pegu and Rangoon Town Districts were strengthened, but the chief cause of the increase was the entertainment for the first time of an establishment for the Pakôkku District. In consequence of these and minor changes the total cost of Supplementary survey rose from Rs. 14,13,000 to Rs. 14,74,000. The cost per square mile of the area subject to operations showed an apparent increase from Rs. 29·19 to Rs. 29·69, but this is in some measure attributable to the exclusion in the later year of areas of Reserved Forest in the Myingyan and Magwe Districts.

General.

29. The returns show 215,000 cultivated acres, or 58,000 acres less than in the preceding year, as the area over which Revision or Extension survey was conducted by the regular staff. But the figures are not free from the possibility of error and it is doubtful how far the statistics of the two years can be properly compared. The area of impermanent island cultivation surveyed during the year was returned at 92,000 acres, as against 111,000 acres in 1909-10. Here again,

CHAP. II.—ADMINISTRATION OF THE LAND.

however, there is some doubt whether the figures were correctly reported. Grazing-grounds were demarcated in nine Lower Burma districts. Reports of alienation of land are said to have been made in Lower Burma with greater regularity than in past years. In Upper Burma, where the old system—under which alienations were reported to the headman of the village—had not worked well, the Revenue Surveyor was substituted as the authority to whom transfers should be reported.

Training of officers.

30. The number of Government Survey Schools stayed at nineteen: the pupils on the rolls fell from 377 in 1909-10 to 321 in the year of report. Among the causes suggested to account for the decline are the presence of plague in some of the towns where Survey Schools are situated, restriction in the operations of special survey, and the comparatively poor pay and prospects offered by the Land Records Department. The cost of educating a pupil averaged Rs. 107 in the year of report, against Rs. 93 in 1909-10. As in the previous year, the sons of village headmen and of persons engaged in agriculture predominated in the schools, the proportion being 2 : 1, against 3 : 2 in the earlier year. The results at examinations were worse. Passed students appear to find little difficulty in obtaining employment. The number of Apprentice Surveyors under training during the year was 382. Only qualified men were appointed as Surveyors. Three Superintendents and three Probationer Superintendents of Land Records entered the Survey Training Camp at Yamèthin, and were still under training at the close of the year. The course was confined to cadastral survey in rural and urban areas. Six probationers left the camp and were posted to the headquarters of districts. One probationer was under training at Dehra Dun.

Transfers of land.

31. For the present, Government has decided not to proceed with legislation to secure the recognition of communal tenures of land in Upper Burma. The returns give statistics of the area of land sold and mortgaged in the occupied rural area under Supplementary survey, excluding the Pakôkku District. Inasmuch as the districts which have not yet undergone Supplementary survey are for the most part remote, hilly, and sparsely cultivated, and land there is of little value, it may be said that the returns now cover so much of the Province as contains rural land of value. There is, however, a qualification which requires to be read into them: they give no figures of the area mortgaged with possession and, as that is the prevailing form of transfer in Upper Burma, where outright sales are not popular—the area sold in Upper Burma in the year amounted approximately to six per cent. only of the whole area sold—the figures are of chief, if not sole, value in their application to Lower Burma. For the Province, the area reported as sold in 1910-11 was less than in 1909-10, and was the lowest on record. The Departmental report again records the opinion that the closer scrutiny to which transfers of land have been subjected since 1906 and the fear of agrarian legislation have caused the decline. Mortgages without possession in the Upper Province amount to 1¼ per cent. only of the area so mortgaged in the whole Province. As with sales, the area mortgaged for the Province was the lowest on record, declining by 6,000 to 227,000 acres. The area redeemed was the lowest for many years.

The value per acre of land sold in Lower Burma fell in the year from Rs. 50 to Rs. 47, and of land mortgaged from Rs. 35 to Rs. 29, the decline being ascribed to the restriction of credit facilities. The areas sold outright or mortgaged without possession in the Upper Province are too small to justify inferences from the deduced figures. The value in mortgage in Lower Burma approximates to two-thirds of the value of an outright sale.

Waste Lands.

Grants and leases for cultivation.

32. As in the preceding year, the figures in the returns represent under the title of grants and leases the area of land taken up for the cultivation of special

staples, or on special terms of exemption. The acreage increased for the Province by 2,000, to 39,000 acres. Large areas, as has been noticed above, were leased for the cultivation of rubber in four of the districts of the Tenasserim Division, where the advance in the area leased more than met large diminutions in other Lower Burma districts, especially those of the Arakan Division.

Revenue-free grants of land and assignments of land revenue.

33. The area granted free of revenue for religious or public purposes was as in 1909-10, small. The area granted as an appanage of the office of headman rose from 1,207 to 1,289 acres, the largest amount granted in the districts being 334 acres, in Thatôn. The value of assignments of land revenue made during the year was Rs. 1,077 or two hundred and three rupees less than in 1909-10, and at the end of the year the total value of assignments was Rs. 51,687.

Government Estates and Wards' Estates.

34. The character of the land tenures in Burma is described in paragraphs 39 *et seq.* of the *Report on the Administration of Burma* for the year 1901-02. Except for land formally admitted to be non-State in Upper Burma, and for land over which a landholder's right has been acquired in Lower Burma, it may be said generally that all rural land in both portions of the Province belongs to Government. In addition, private rights—if any—have been bought out by Government in large areas intended to be set aside as Reserved Forest and in many other areas acquired for other special purposes. Apart from Government land of the kinds mentioned, there are no Government Estates, in the special sense of particular cultivated areas managed by Government after the fashion of a private landlord. There are no Wards' Estates.

Revenue and Rent-paying Classes.

Area held by agriculturists.

35. The returns of the Provincial area occupied by agriculturists show a fractional decrease, the percentage now being 84·5 of the whole occupied area, against 84·6 in 1909-10. There is, however, some difficulty in defining the term *agriculturist*. Of the remaining area, six per cent. is shown as being in the hands of resident, and 9·5 per cent. as being occupied by non-resident non-agriculturists. The test of residence is, however, applied variously, and the figures are of doubtful value. The percentages differ little from those of the preceding year. The district in which the highest percentage of land is held by non-agriculturists is Hanthawaddy, where 37 per cent. is so held.

Tenancies.

36. Tenancies in which the rent is a share of the produce are excluded from the returns, which do not therefore reflect even approximately the conditions prevailing in the Upper Province, where large areas are rented on that and little on any other system. The area reported as fully rented rose in the year by seventy thousand, to 2,932,000 acres, of which some $3\frac{1}{2}$ per cent. only fell within Upper Burma. The fully rented area in the Lower Province alone approaches therefore three million acres. Friction in the relations between landlord and tenant is exceptional. High prices prevailed for rice and rents, as measured in money, rose in consequence in most of the districts of Lower Burma. Outside the Arakan Division, there were only two Lower Burma districts—Mergui and Bassein—where the average rent per acre fell below ten rupees. General deductions as to the level of rentals in Upper Burma cannot be drawn from the returns.

CHAPTER III.

PROTECTION.

REFERENCES :—

Report on the Police Administration of Burma for the year 1910.
Report on the Rangoon Town Police for the year 1910.
Resolution on the Reports on Village Administration in Burma for the year 1910.
Report on the measures adopted for the extermination of Wild Animals and Poisonous Snakes in Burma during the year 1910.
Reports on the Administration of Criminal Justice in Burma for the year 1910.
Report on the Prison Administration of Burma for the year 1910.
Reports on the Administration of Civil Justice in Burma for the year 1910.
Report on the working of the Registration Department in Burma during the three years ended the 31st December 1910.
Report on the working of the Indian Companies Act in Burma for the year 1910-11.
Report on the working of the Rangoon Municipality for the year 1910-11.
Resolution reviewing the Reports on the working of Municipalities in Burma during the year 1910-11.
Administration Report of the Public Works Department, Burma Buildings and Roads Branch) excluding Irrigation, for the year 1910-11.
Administration Report of the Commissioners for the Port of Rangoon from the 1st April 1910 to the 31st March 1911.
Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1910-11, Part III, Shipping.
Report on the Maritime Trade and Customs Administration of Burma for the official year 1910-11.
Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.
Annual Statement of the Coasting Trade and Navigation of British India.
Statistics of British India, Parts II, V, VI and VIII.
Report on Government Steamers, Vessels and Launches in Burma for the year 1910-11.

Legislative Authority

The history and constitution of the Legislative Authority of the Province are described in paragraphs 43 to 46 of the *Report on the Administration of Burma* for the year 1909-10.

Course of Legislation.

Work of Legislative Council.

37. During the legislative year ended the 31st March 1911, three Bills were passed as Burma Acts I and II of 1910 and I of 1911. They were the Burma Process Fees Act, the Burma Steam-boilers and Prime-movers Act, and the Rangoon Police Amendment Act. The first two Acts were introduced as Bills into the Council during the year 1909-10, but were not published as Acts till the following year. Although they were passed during the year, they were not given the force of law, as they take effect only from such date as the Local Government may by notification direct, and the Local Government issued no such notification during the year 1910-11. The remaining Act was introduced into the Council during the year of report. Another Bill, the Burma Municipal Amendment Bill, was also introduced during the year, but it did not pass into law until May 1911, *i.e.*, after the close of the year 1910-11. The Burma Process Fees Act was passed with the object of consolidating and simplifying the law relating to processes and process-servers. The provisions of the law relating to these matters were before contained in five different enactments, and the previous sanction of the Governor-General in Council was required to the framing of rules relating to process-servers and process-serving establishments. The Act gives the Local Government power to make such rules, subject only to the control of

the Governor-General in Council. The Burma Steam-boilers and Prime-movers Act repeals and re-enacts, with certain amendments, the Burma Steam-boilers and Prime-movers Act of 1882. The reason for introducing a new Act was that the working of the 1882 Act brought to light numerous defects in its provisions. The chief were that the Act provided for a classification of engines according to the horse-power of the engine instead of according to the horse-power of the boiler, and that it did not provide sufficiently for the reporting of accidents and breaches of the law. The new Act provides for these matters and also for the creation of a body, called the Boiler Commission, to supervise the working of the Act. The Rangoon Police Amendment Act is a small but important Act framed with the object of restricting the carrying of knives, loaded sticks, and other weapons of a deadly character in public places in Rangoon, and of thus providing for the better preservation of the peace. The unrestricted handling of these weapons had been the cause of many murders and crimes of violence, and the matter could not be dealt with under the provisions of the Indian Arms Act, 1878, because it was held that knives, bludgeons and other murderous instruments usually carried about were not arms within the meaning of that Act. The Act also gives the Commissioner of Police power to prohibit speeches, exhibitions and other performances which are likely to outrage morality or decency or to lead to a breach of the peace.

General Acts affecting Burma.

38. The undermentioned General Acts affecting Burma were passed by the Governor-General in Council during the year:—

General Acts of 1910.*

XIV.—The Indian Emigration (Amendment) Act, 1910.
XV.—The Cantonments Act, 1910.
XVI.—The Indian Census Act, 1910.
XVII.—The Continuing Act, 1910.

General Acts of 1911.

II.—The Indian Patents and Designs Act, 1911.
III.—The Criminal Tribes Act, 1911.
IV.—The Indian Ports (Amendment) Act, 1911.
V.—The Indian Tramways (Amendment) Act, 1911.
VI.—The Indian Tariff (Amendment) Act, 1911.
VII.—The Indian Paper Currency (Amendment) Act, 1911.
VIII.—The Indian Army Act, 1911.
IX.—The Births, Deaths and Marriages Registration (Amendment) Act, 1911.
X.—The Prevention of Seditious Meetings Act, 1911.
XII.—The Indian Factories Act, 1911.

Regulations affecting Burma.

39. Two Regulations affecting Burma, *viz.*, Regulations II and VI of 1910, were enacted during the year. Regulation II amends the Burma Laws Act, 1898, the Kachin Hill-tribes Regulation, 1895, and the Chin Hills Regulation, 1896, with the object of delegating to the Local Government some of the powers conferred by these enactments on the Governor-General in Council. Regulation VI, the Upper Burma Oil-fields Regulation, was enacted with the object of controlling and regulating the petroleum-mining industry in Upper Burma.

Extension of enactments to Shan States.

40. The Indian Census Act, 1910, was extended to all the Shan States. The Indian Explosives Act, 1884, was extended to the Myelat, and to such lands in the Southern Shan States as were, or may at any future time be, occupied by the Southern Shan States Railway, subject to certain restrictions in the case of the Myelat.

* The following Acts were omitted in paragraph 48 of the General Administration Report for 1909-10, *viz.*:—

IX.—The Indian Electricity Act, 1910.
XII.—The Glanders and Farcy Law Amendment Act, 1910
XIII.—The Prisons (Amendment) Act, 1910

Police.

CHAP. III.—PROTECTION. Civil Police: organization.

41. Two important changes in the constitution of the Civil Police force were effected during the year 1910. The first was the creation of a reserve of Sub-Inspectors, making necessary the addition of seventy appointments of Sub-Inspector, which were distributed among all the districts of the Province except Salween: the second was the creation of a reserve, of a total strength of six Sergeants, for the force of European Inspectors and Sergeants. Owing to the difficulty of recruitment experienced in consequence of the high wages ordinarily prevailing in the labour market, proposals were made and, since the close of the year, have been sanctioned, to raise the monthly emoluments of the lowest grade of Constable from twelve to fourteen rupees, in the Hanthawaddy District. Proposals on similar lines are under consideration for the grant of town allowances to Constables serving in Mandalay and Maymyo; for enhancing the emoluments of Head Constables and Constables at Victoria Point, Maliwun, Bôkpyin, and Karathuri in the Mergui District, where the development of the mining and rubber industries has raised wages; and for the grant of local allowances to all ranks of the Special Police Force serving at the Yenangyaung oil-fields, where the various oil companies offer high wages.

Cost, strength, recruitment and conduct.

42. The cost of the force was Rs. 54,83,239, as compared with Rs. 54,24,751 in 1909. At the end of 1910, the actual strength (excluding Gazetted Officers) was short of the sanctioned establishment by 84 officers and 964 men, the deficit being less by fifty, as regards men, and more by 51, as regards officers, than at the close of 1909. The deficiency in men is most marked in the Pyapôn, Mergui, Hanthawaddy, Salween, Katha, Thatôn, Magwe and Bassein Districts. Dismissals from the force for all causes diminished slightly, the diminution being greatest in the heading of dismissals consequent on magisterial conviction. Departmental punishments falling short of dismissal increased largely. The percentage of literate officers and men was 85, as in the previous year. At the close of the year, the strength of the Provincial Police Training School stood at ten Probationary Assistant Superintendents, two Cadet Inspectors and 74 Cadet Sub-Inspectors. The number of recruits enlisted increased by 24, and there were increases in the number of men with long terms of service to their credit, but most officers continue to complain of the difficulty of engaging men. Resignations without pension or gratuity fell by one hundred, and casualties by discharge diminished by the same figure.

Buildings.

43. The want of funds for Police buildings received comment in the reports for 1909, and there was little improvement in 1910. The sum allotted to the Civil Police for original works amounted to the exiguous figure of Rs. 5,500. For petty construction and repairs, a grant of two lakhs was sanctioned: one-half of this sum was ultimately assigned to cover the cost of renting buildings for men not provided with quarters.

Crime and the working of the Police.

44. An increase of crime cognizable by the Police was recorded in the year, the total number of cases dealt with rising from 38,503 to 40,589. The total is smaller than that of 1908 and 1906, but in those years it was the less heinous classes of crime which contributed chiefly to the high figure, whilst in 1910 the more serious forms of crime (Classes I to III) are at the highest level of the quinquennium. Of the eight Divisions, Arakan is the only one in which there was a decrease, and this was largely brought about by the results shown in the Akyab District. The Pegu Division shows the greatest volume and the largest increase of crime in the Province. The Tharrawaddy District has the most crime of any district; the figures disclose a large increase in cattle theft, and there were no less than nineteen true cases of kidnapping or abduction, twelve of which resulted in conviction. In two cases the victims were murdered. Against these unsatisfactory figures is to be set a diminution of 29 cases in the category of serious offences against the person. In the Prome District, this category of

crime increased by no less than 85 cases; there were fifteen more murders, five more cases of attempt to murder, six more of culpable homicide, and 22 more of grievous hurt: there were nine true cases of kidnapping or abduction, and in two the victims were murdered. In the Pegu District, murders increased by eleven and dacoities by seven cases. In Bassein, crime falling within Classes I to V increased by 231 cases, serious offences against the person rising largely. The Amherst District exhibits the largest increase of crime in the Tenasserim Division. In the Magwe Division, the Thayetmyo District shows an increase under Classes I to V of 114 cases, and in the Magwe District murders rose from two to sixteen. Among the suggestions made by district officers to account for the general rise in the figures occur better detection by the Police, alcoholism, the carrying of clasp knives, and the halo of romance that surrounds a successful law-breaker.

The number of true cases of violent crime rose by 125, to a total of 1,181, murders (other than murders by dacoits, robbers or poison) rising by 67, attempts to murder by 21, and robberies by 42. Violent crime is most prevalent in the Pegu Division. In the Hanthawaddy, Thatôn, Prome and Tharrawaddy Districts the number of cases of murder by dacoits, robbers, or poison, of dacoity and preparation for dacoity, of robberies and the more serious forms of house-breaking, amounted to 61, 59, 55 and 46 respectively. Of the districts of Lower Burma, Prome shows an increase of 39 cases of violent crime, Hanthawaddy of 27, Thatôn of 25, and Thayetmyo of sixteen. The Tharrawaddy, Bassein and Pyapôn Districts record decreases. Excluding twelve cases of violent crime which were dealt with directly by the Courts, 1,169 true cases were handled by the Police: 46 per cent. of the cases dealt with, and 67 per cent. of the cases tried, resulted in conviction. The property recovered in cases of dacoity was twelve per cent., as against nine per cent. in 1909. Firearms were used in 47 cases of violent crime, as against 55 in the preceding year.

Sixty-six per cent. of the whole number of cognizable cases investigated by the Police ended in conviction. The results for the Province as a whole, as regards detection and the preparation of cases for trial, differ little from those of 1909. In 1 270 cases investigation was refused by the Police under section 157 (*b*) of the Code of Criminal Procedure, as against 1,244 cases in 1909.

Important incidents.

45. The most serious case of the year was an abortive rising, which culminated in an attack on Myinmu in the Sagaing District. The case does not, however, find a place in the number of true cases dealt with during 1910, as it was pending at the close of the year. A brutal dacoity was committed at Syriam in the Hanthawaddy District by five Mahomedan boys, aged from fourteen to eleven years, the victim being a three-year old Coringhi girl. Three of the boys were, on conviction, sent to the Reformatory School. In February 1910, the house of the headman of Kamaba village in the Pegu District was attacked by five armed dacoits, and a sum of Rs. 9,000 taken. The villagers made a resolute defence, killing one of the dacoits and wounding another, whilst seven of their own number received gunshot wounds. In Prome, there was a dacoity with firearms in Ywatha-hla village, the dacoits numbering fifteen persons. Some of the property taken was recovered, and two of the dacoits were captured, and ultimately transported for life. At Kungyan in the Myaungmya District, the Police received information of an intended dacoity, lay in ambush and, after a fight, recovered all the property taken, and mortally wounded one of the dacoits. There was a dacoity with firearms at Wetmasôk village in the Magwe District, the dacoits taking away property valued at Rs. 6,492. The villagers showed no resistance. In the Lower Chindwin District, there was a dacoity with firearms in which the villagers offered resistance, but the village headman was shot dead. In the Myingyan District the resistance offered to a dacoity at Kyundaing village was more fortunate; the leader of the dacoits was captured with his firearms, the property taken was recovered, and the members of the gang were sentenced to various terms of imprisonment. There was a determined robbery at Thayetkôn village in the Bassein District, in which the headman of the village was fatally wounded. The villagers, however, resisted successfully, and the case terminated in capture and conviction.

CHAP. III.—PROTECTION. Particular offences and cases under Special Acts.

46. Cattle thefts rose in number by 368 cases, this form of crime being prominent in the Pegu, Irrawaddy, and Tenasserim Divisions. The districts which show the largest increases are Hanthawaddy (91 cases), Bassein (77 cases), Tharrawaddy, Amherst, Henzada, Toungoo, Ma-ubin, Thatôn and Thayetmyo. Of the persons tried for this form of theft 58 per cent. were convicted. Cattle valued at Rs. 3,18,540 were stolen, and the recoveries were valued at Rs. 2,07,860.

The number of cases under the Excise law increased, and ninety per cent. of the trials ended in conviction. The cocaine habit is stated to be growing in the Prome, Hanthawaddy and Pegu Districts, cocaine taking the place of opium with many drug-consumers. The largest seizures of cocaine were 73,467 grains in the Tharrawaddy District, 25,615 grains in Prome, 22,327 grains in Pegu, and 19,577 grains in Hanthawaddy. Ganja amounting to 16,991 tolas in weight was seized in the Tharrawaddy District. Ninety-seven per cent. of the trials under the Opium Act ended in conviction, but the total number of offences dealt with fell slightly. The district which effected the largest seizures of opium was Akyab, with 13,031 tolas. The trade in opium between Yamèthin and the Shan States is stated to be large and systematic.

Offences under the Gambling Act fell during the year. Eighty-six professional gamblers were placed on security, principally in the districts of Prome—where there were twenty-four prosecutions under section 17 of the Act—Henzada, Pegu and Myaungmya. A decrease in the number of gambling cases at Prome is attributed to the placing of professional gamblers on security.

There was a decline of nineteen in the number of cases dealt with under the Arms Act, and several districts report seizures of firearms. The reports again reflect the opinion that much crime would be prevented if the practice of carrying dangerous weapons, such as clasp-knives and the knives used in pruning toddy-palm trees, could be stopped, especially in towns.

Non-cognizable crime increased by 732 cases, but the increase was confined to the less heinous offences. Of the persons tried, sixty per cent. were convicted.

The preventive law.

47. The number of persons prosecuted under the 'preventive' sections of the Code of Criminal Procedure varied little from the figures of the previous year. Of the total number, 81 per cent. were called upon to give security, as against 75 per cent. in 1909. Prosecutions were most numerous in the Tharrawaddy, Henzada, Bassein, Akyab, Toungoo, Myaungmya and Pegu Districts. In the Hanthawaddy District there was a decrease of 198 prosecutions, the number falling from 215 to seventeen. There is still stated to be room for improvement in selecting the persons to be proceeded against under these sections of the law, and the difficulty of obtaining evidence is frequently noticed in the repofts.

Surveillance and identification of criminals.

48. The new scheme for the surveillance of criminals and for watching and reporting on suspicious characters was established in all districts during the year, and the new registers are now in working order. At the beginning of the year there were 18,504 names of criminals on the Surveillance Register: at the close, 14,015 names remained on that register, and 83 on the Register of Prisoners Conditionally Released, the large number expunged being due to the requirements of the new scheme. Of the number remaining on the registers, the place of residence of eight per cent. was unknown, sixteen per cent. were in jail, and 10,554 criminals were actually under surveillance. One thousand, two hundred and four criminals under surveillance were reconvicted and imprisoned; of these, 217 were dealt with under section 565 of the Code of Criminal Procedure and ordered to notify their residence and change of residence after release. Surveillance is reported to be generally effective. Absconding offenders advertised during the year numbered 1,362, and of these 26 per cent. were arrested, against 28 per cent. in 1909. The number of such offenders at large at the close of 1909 was 7,777, and, at the close of the year of report, 6,395. The diminution was in the main due to the cancellation of many names which had been improperly allowed to remain on the old registers. Of 3,354 old offenders reconvicted during the year, 3,349 were identified by the Police before, and five by the Jail authorities after, sentence. Seven hundred and ninety-two had undergone two

previous convictions : 486 three : and 541 four or more. The Finger Print Bureau received 7,769 search slips during the year, and traced nearly twenty per cent. of them, the figures in each case showing a slight enhancement over those of 1909 : 114 criminals gazetted as "*whereabouts unknown*" and 69 absconding offenders were traced through the medium of slips, the total figure being an improvement on that of the previous year. Expert evidence was given in 73, as against 43, Criminal : and in 27, as against eighteen, Civil cases. Beat-patrols were reorganized in five districts : at the close of the year the number of patrols in the Province stood at 1,531. In the Tharrawaddy and Prome Districts, many registered criminals were traced through the instrumentality of beat-patrol constables, and it was from information supplied by a beat-patrol that the existence of a systematic trade in stolen ponies between Yamèthin and the Shan States came to light. On the other hand, adverse criticism of the beat-patrol as an agency of Intelligence was drawn from the failure of the patrols to report the Sagaing rising in its earlier stages. Rewards were freely given to headmen and villagers and they were of assistance to the Police in the detection of crime and the arrest of offenders. CHAP. III.—PROTECTION.

Punitive Police.

49. Owing to attempts made to derail a train in the region north of Minhla in the Tharrawaddy District, a Punitive Police-force was quartered on the inhabitants of four villages for six months. A force was sanctioned at the close of the year for the Tapun Township in the same district ; the villagers had given shelter to bad characters engaged in the practice of abduction for ransom. In the Prome District, a force was imposed on the village-tracts of Thitseinbin and Buttaw, in consequence of the prevalence of cattle-theft.

Railway Police.

50. The number of Sub-Inspectors was increased by three in order to form a reserve. Otherwise, there was no important change in the strength of this branch of the Police, and the sanctioned number of police-stations and outposts remained the same. The cost fell slightly. Although there were some vacancies in the strength at the close of the year, no difficulty in obtaining recruits is reported, but in several stations local men cannot be engaged. The number of men dismissed or removed departmentally or in consequence of magisterial conviction increased, whilst rewards diminished. The increase is attributed to the organization of additional train patrols, and to greater activity in discovering cases of fraud committed by Railway police-officers on the Railway Company. There was a slight decrease—not confined to the class of offences of minor gravity—in the amount of true cognizable crime dealt with. The percentage of convictions in cases falling within Classes I to V declined, however, from forty to 36 per cent. The number of violent crimes fell from 23 to five, but it is pointed out that the area of jurisdiction of the Railway Police was curtailed during the year of report. Conviction was obtained in two of the five cases. There was one undetected case of cattle theft. Cases of ordinary theft numbered 447, and of these 41 per cent. ended in conviction, and some 27 per cent. in value of the property stolen was recovered.

Military Police.

51. On the 31st December 1910, the actual strength of the Military Police was 15,473 officers and men, or 840 below the establishment. A large number of men of long service were invalided during the year, and restrictions were also placed on the number of recruits to be enlisted, as proposals for reduction of the force were under consideration. The Ruby Mines Battalion was reduced by one Company, which was transferred to the Northern Shan States Battalion. The cost was Rs. 55,64,584, a decrease of Rs. 1,15,899 on the cost of the previous year ; this was chiefly due to battalions being under strength during 1910. The number of departmental punishments increased, but desertions were fewer, and fewer men were judicially punished. Discipline was good, and the relations of the men with the people were satisfactory. The health of the force was worse : the invaliding of 727, as against 488, men was due to a special cause, namely, the retirement of a large number of old and worn-out units ; but the percentage of admissions to hospital rose, as did the number of men

CHAP. III.—PROTECTION.

despatched on sick leave to India and the percentage of casualties from natural causes. Battalion Commandants report that the stamp of Indian recruit now enlisted is not generally as good as in former years. A section of the Bhamo Battalion, comprising two mountain guns, was rendered mobile during the year, and is now able to proceed on service with pack-mule transport. The efficiency of the Mounted Infantry contingents was well maintained. About half a company of the Myitkyina Battalion were trained as pioneers. Signalling throughout the force is stated to be efficient, and received a practical test on column duty. The deficiency of funds for public works made it impracticable to carry out many important projects which have received administrative sanction. In addition to the usual escorts that tour in the frontier districts through the cold weather, a column provided by the Myitkyina Battalion proceeded with the Deputy Commissioner of the district into the Kachin country east of the N'Mai-kha, and another accompanied a Political Officer to the Shan State of Hkamti Lōng.

Rangoon Town Police.

52. The Civil Police in the town of Rangoon continued to be administered as a separate body. There was, during the year 1910, an increase of 38 men in the sanctioned strength of the Rangoon Town and Port Trust sections of the force, and a decrease of twenty men in the Plague Police section. The increase was sanctioned in order to provide adequate reserves, and, at the close of the year, the two first-named sections were fifteen men only short of the full strength of 78 officers and 1,008 men. The cost of the establishment rose by three thousand rupees, to Rs. 5,11,000. The conduct of the men continued to be good. There were fewer removals and dismissals than in the preceding year, and the number of resignations diminished slightly. The departmental report ascribes the decline in resignations in part to the existence of an adequate reserve, which enabled leave to be granted more liberally. The number of men who received punishments declined from 312 to 262, but punishments of officers showed the opposite tendency and to a marked degree, eleven officers being punished as against one in 1909. Similarly, fewer officers, but many more of the men, received rewards than in the previous year. The majority of the punishments inflicted on the men were for slackness on night-patrol duty, and the report notices that laxity in this respect is largely due to the fact that the men do not get a single uninterrupted night in bed throughout the year. Since the close of the year of report, proposals for further increasing the strength, in order to augment the number of men in each beat, have been submitted to Government. Recruiting was successfully carried on, no difficulty being experienced in engaging Burmans of a good stamp and fair education. No new Major works could be erected during the year, for lack of funds, and the accommodation at many stations is restricted.

The town was all but free from riots and faction fights. The species of hooliganism from which the peace of Rangoon had suffered in past years received a check in the conviction for rioting of several members of a gang of hired desperadoes; and, as was anticipated in the report for 1909, the utilization against the Kenteik and Hooseng Chinese Societies of the provisions of the Foreigners Act, for the purpose of deporting the ringleaders, reduced to quiescence the turbulent members of these associations. Pilfering by coolies engaged to carry articles purchased in the markets has been a fruitful source of complaint in past years: the experiment was tried, in the year of report, of registering the coolies employed in the Surati market, and equipping them with a distinctive dress and number. The pretender Po Than, the central figure in the Sagaing rising, was arrested, with others of his followers, on their arrival by train at Rangoon on the 30th of November 1910.

The volume of cognizable crime reported as true declined from 12,706 to 11,256 cases, but the whole of the decrease is assignable to the abolition of the Police employed by the Society for the Prevention of Cruelty to Animals, and to a consequent cessation of prosecutions. Offences under the Penal Code increased by sixty cases. The number of murders, attempts to murder, and cases of culpable homicide rose, as did robberies. Cases of hurt caused by a dangerous

weapon diminished in number, a phenomenon in part perhaps attributable to the knowledge that the carrying of such weapons in public was soon to be made a penal offence, and there was a diminution in the number of ordinary thefts and of certain forms of house-breaking. The decrease in thefts occurred almost entirely in thefts from houses, and the probable cause is the better class of houses now being erected in Rangoon. The proportion of cases of serious crime in which a conviction was secured rose to 64 per cent. Prosecutions under the Excise Act more than doubled in the year, and the Opium Act was also employed more frequently. Gambling is said to be carried on nightly in Chinese clubs in the town, but the Gambling Act is stated still to be practically a dead letter, owing to the formalities of procedure which it requires before entry can be effected. Statistics of drunkenness were compiled for the first time: 1,520 cases, out of 1,763 instituted, ended in conviction. In 24 other cases, all but one of which were crimes of violence, the accused persons were under the influence of liquor.

Village administration.

53. The total number of village headmen in the Province declined by 31 to 17,949,* the diminution being spread over many districts. It was due to a continuation of the process of amalgamating headmanships in special cases. There was a diminution in the number of headmen of circles receiving the entire commission throughout their charges, and also a diminution in the number receiving full commission in their own and a share of the commission in subordinate village-tracts. The number of subordinate headmen receiving no commission fell from 3,564 to 3,286. Against these diminutions is to be set an increase in the number of independent headmen drawing full commission, which rose from 12,968 to 13,277. These changes reflect the development of the policy of reducing the number of large and increasing the number of small charges, and of giving the whole of the commission on revenue collections to the headman of each small independent charge. The processes of defining and demarcating the boundaries of village-tracts and of issuing maps to headmen continued. The number of headmen exercising special criminal powers rose from 935 to 975, and of those exercising civil powers from 1,223 to 1,296. It was reported generally that headmen exercised their special powers wisely. The amount of the fines inflicted by headmen rose by Rs. 3,000, to Rs. 1,39,000. The Provincial increase is, however, much more than accounted for by an increase of Rs. 7,500 in the fines inflicted in a single district, Meiktila, where the fencing law was vigorously enforced, and in Lower Burma only five out of nineteen districts reported a higher figure than in 1909. The Provincial total of headmen's orders which were examined in revision rose from 13,826 to 21,011: the percentage of confirmations to the total number of orders examined advanced from 95 to 96. It was reported that headmen performed their duties in connection with the assessment and collection of revenue satisfactorily. Their relations with the Police remained good and, except in Excise matters, headmen gave their assistance freely in reporting and detecting crime. The work done by them in collecting vital statistics and in encouraging sanitary reforms in the villages is reported to be improving gradually. The number of headmen dismissed declined slightly, to 268. The less serious forms of punishment were however more numerous than in the preceding year, suspensions advancing from 51 to 97 and cases in which headmen were fined from 536 to 683. Rewards were given more freely than in 1909. Land was granted in several Divisions as an appanage of the office of headmen, which remains almost universally a coveted appointment. The number of village-tracts which received fines and the sum of the fines inflicted on village-tracts rose during the year of report, as did the number of villages fined under the provisions of the Track law.

Wild animals and snakes.

54. The mortality caused by wild animals and snakes among human beings rose from 1,324 deaths in 1909 to 1,353 in 1910. Wild animals killed eighty persons, or seven more than in 1909; in the Tavoy District, two man-eating tigers killed sixteen persons. The number dying from snake bite increased from 1,251 to 1,273,

* The revised figure for 1909 was 17,980.

CHAP. III.—PROTECTION.

the largest increases occurring in the Dry-Zone districts of Sagaing, Meiktila and Myingyan. In Tharrawaddy there was a marked decrease, said to have been due to the cultivators wearing boots in the reaping season, when Russell's vipers are most numerous. A considerable number of Sir Lauder Brunton's lancets were distributed, and there were again many reports of their successful use. Since the species of snake is hardly ever satisfactorily identified, these reports are of uncertain—whilst no doubt of some absolute—value. The total mortality amongst cattle was 14,449, or 528 fewer than in the preceding year. Wild animals destroyed numbered 3,225, as compared with 2,928 in 1909. Rewards continued to be paid for crocodiles in the Mergui District. No rewards were given for the destruction of snakes, but towards the end of the year the grant of rewards for Russell's vipers was sanctioned as an experimental measure for five years in the Hanthawaddy and Tharrawaddy Districts, where these snakes are particularly numerous. Seven hundred and sixty new licenses under the Arms Act were granted and the total number in force at the end of the year was 1,523, as compared with 1,299 in 1909.

Criminal Justice.

Courts.

55. The administration of Criminal Justice in Lower Burma in the year 1910 was in the hands of the Chief Court of Lower Burma, assisted by 71 European and 228 Native Judges and Magistrates, and by thirty Benches of Honorary Magistrates. In Upper Burma, Criminal Justice was administered by the Judicial Commissioner, who had under his control seventy European and 134 Native Judges and Magistrates, and seven Benches. The changes in the arrangements for the administration of criminal justice in the Lower Province were few. No legal enactments were brought into force, and the only notification which had an important effect was one issued by the Home Department of the Government of India, specifying the offences for which juvenile offenders may be punished with whipping in lieu of imprisonment. In Lower Burma, one Additional Judge was entertained in the Chief Court for the whole year, and another for eight months; and an Additional Sessions Judge was appointed temporarily at Bassein. In Upper Burma, except for the creation of one new Subdivision, and the appointment of an officer as Additional 1st Class Magistrate for the purpose of enquiring into cases relating to the misappropriation of funds of the Government Kheldah, the changes in courts and officers were unimportant.

Cases.

56. For the Province, the number of offences reported during the year rose from 94,428 to 96,978, 81,459 of which were returned as true cases. There was an increase of 2,032 reported cases in Lower, and 518 in Upper Burma. In Lower Burma, reports of offences under the Police Act increased by 1,495, under the Excise Act by 834, and under the Municipal Act and Rules by 746. Offences reported in Rangoon Town under the Act for the Prevention of Cruelty to Animals decreased largely, the prosecuting staff of the Society having been abolished towards the end of 1909. The increase of crime in Lower Burma was not, however, confined to the less heinous categories. The figure of murders and attempts to murder, for example, has risen from 181 in 1908 to 234 in 1909 and 284 in 1910. Of the increase of fifty cases in the latest year, the Pegu and Thayetmyo Districts between them contributed one half. Offences affecting life reported as true also showed an increase, of 77: robberies returned as true rose by 43: dacoities by seven: cattle thefts by 446. In the Tharrawaddy District alone, the increase under the last-named head was from 268 to 443. The passionate nature of the people, growing alcoholism, and—so far as cattle thefts and kidnappings are concerned—the development of the *pyanpe*, or ransom, system are assigned as causes of these disquietingly larger figures. Complaints dismissed *ab initio* rose by 223. The percentage of cases returned as true to the number of reported offences fell fractionally.

In Upper Burma offences reported under the heading of hurt and offences against the Municipal Act rose largely, and there were decreases under

the Police and Excise Acts. As in Lower Burma, there was an increase under several of the graver headings. Cases of murder rose from 68 to 86: of hurt by 353, to 2,164: and cattle thefts increased from 253 to 309. The number of complaints summarily dismissed remained almost stationary. The percentage of true to reported cases declined. CHAP. III.—PROTECTION.

57. In Lower Burma, the number of cases tried by District Magistrates declined from 858 in 1908 to 573 in 1909, and rose to 702 in 1910. The number disposed of by Benches of Honorary Magistrates, 19,871: the percentage of cases tried summarily, 38·5: and the percentage of convictions, 60, varied little from the figures of 1909. The percentage of convictions was lowest in the Pegu, Myaungmya, Akyab, Amherst and Hanthawaddy Districts. Prosecutions under the 'preventive' sections of the Code of the Criminal Procedure rose, a diminution in the number of persons against whom proceedings were held with a view to demanding security to keep the peace being more than counterbalanced by an increase of 341 in the number of persons proceeded against with a view to requiring security for good behaviour. In respect of the proportion of proceedings under these sections to the population, the figures for Burma exceed those of any other Province. Bassein, Tharrawaddy, Henzada and Akyab were the districts in which the sections were most frequently employed. The number of cases committed to Courts of Session was 544, as compared with 473 in 1909. The percentage of convictions and references in Courts of Session was fractionally higher than in the earlier year. The number of cases committed to the Chief Court was 95, the greatest number since the creation of the Court. The duration of cases in Magistrates' Courts averaged thirteen days, an increase of two days over the average duration in each of the previous five years. In Courts of Session, the average duration fell from 55 to 48 days. The number of witnesses examined in 1910 was 286,812, or nearly one hundred thousand more than in 1901. Disposal of cases.

In Upper Burma, District Magistrates disposed of 502 cases, of which one-half were tried under their special powers. More than one-fourth of the cases disposed of by Magistrates in the Upper Province were dealt with summarily. The percentage of convictions to the number of persons tried fell from 60·11 in 1909 to 58·57 in 1910, but it is pointed out that compositions increased in the later year, and this has the effect of lowering the percentage of convictions. Benches of Honorary Magistrates disposed of 3,587, as against 3,175 cases. Sessions Courts decided 153 cases, as against 107 cases. Action under the 'preventive' sections of the Code was taken in 507 cases, as compared with 466 cases in the preceding year. Bonds for keeping the peace and for good behaviour were, however, demanded from 343 persons only, or one less than in 1909. The average duration of cases rose from ten to eleven days.

58. In Lower Burma, the number of persons punished in Courts of Magistrates rose from 68,062 to 69,385. There was an increase in the number of persons sentenced to rigorous imprisonment, and the decline in sentences of simple fine, and in the percentage of actual to possible whippings, continued. The number of short sentences of imprisonment imposed has increased from 1,210 in 1908 to 1,760 in 1909, and 2,432 in 1910. The increase in the latest year was almost entirely due to an increase in the Rangoon Town District, where the number of short terms of imprisonment rose by 621. The amount of fines imposed fell from Rs. 5,99,697 to Rs. 5,58,410. The number of cases in which persons were ordered, under section 250 of the Code of Criminal Procedure, to pay compensation for frivolous and vexatious accusations increased slightly, as did the number of first offenders released under section 562 of the Code. Punishments.

In Upper Burma, the number of persons punished decreased from 23,957 to 23,578, chiefly owing to a decline in the number of offences reported under the Railways, Excise, Police and Gambling Acts. The percentage of the total number to whom were awarded sentences of fine without imprisonment fell from 83·83 to 82·98. The amount of fines imposed increased slightly. The percentage of sentences of whipping to cases in which whipping might have been awarded

CHAP. III.—PROTECTION.

rose from 23·39 to 27·19. The provisions of section 250 of the Code were applied to a less extent in the year, and the number of first offenders dealt with under section 562 fell slightly.

Appeals.

59. Appeals in Lower Burma rose by 1,006, chiefly under the heading of appeals to Sessions Courts. Appeals to the Chief Court increased from 884 to 916. The general percentage of sentences confirmed on appeal rose from 68·5 to 70·3. The average duration of appeals rose by three days. In Upper Burma, there was a slight increase only in the number of appeals. The general percentage of confirmation rose from 63·32 to 67·85, the percentage being much higher in the Courts of District Magistrates than it was in the preceding year. The general average duration of appeals was further reduced from twelve to eleven days, and in the Court of the Judicial Commissioner it fell from 32 to 27 days.

Revisions.

60. In Lower Burma, the number of cases called for in Revision declined from 5,676 to 5,443, but Sessions Judges called for 159, and the Chief Court for 34, more cases than in 1910. In Upper Burma, the number of cases called for in Revision under the Criminal Justice Regulation was 1,610, or 77 less than in the previous year, and cases otherwise called for numbered 1,440, or 138 more than in 1909.

Prisons.

Accommodation.

61. The accommodation for males reached 14,818 places, or an increase of 78, in the year 1910. The accommodation for females was 354 places. The daily average prison population was 14,773. Had it been possible to distribute the prisoners evenly among all the jails of the Province, there would have been sufficient accommodation : this was, however, for many reasons impracticable, and there was considerable over-crowding, particularly in the Lower Burma jails of Rangoon, Insein, Prome, Henzada, Bassein, Myaungmya, and Myanaung. As a result, profitable labour could not always be found for all the prisoners in certain jails, notably Bassein, Toungoo and Myingyan, and prisoners had to be placed from time to time on shot drill.

Prisoners.

62. If the figures of convicted and undertrial prisoners are taken together, there was an increase of 3,953 admissions and of 2,428 discharges during the year, and the daily average prison population was 1,092 more than in 1909. Admissions, discharges, the number of prisoners remaining in jail at the close of the year, and the daily average number in jail, all show the highest figures recorded since 1900. Compared with the previous year, the admissions of convicts to jail increased by 1,961, the increase being most marked at Rangoon and Bassein. Among several causes suggested to account for this, are given increasing alcoholism and morphinism and growing criminality. The daily average convict population increased by 975. The number of youthful offenders, boys and girls under sixteen years of age, admitted to jail was 137, an increase of eleven over the figures of the previous year, and 207 juveniles were sent to the jails to be whipped. The percentage of re-convicted prisoners fell from 24·17 to 24·04, the highest figure appearing at Henzada (40·71) and the lowest at Shwebo (11·46). Of the 42 male and two female juveniles under fifteen years of age admitted to jail during the year, ten, all males, had been previously convicted, the corresponding figures for 1909 being 63, five and ten respectively. Twenty-one of the juvenile prisoners were transferred to the Reformatory School at Insein. There was an increase in the number of sentences in which solitary confinement was awarded. The identification of habitual prisoners was effected before conviction in 4,974 cases, and in jail in eleven cases.

Discipline.

63. Notwithstanding the increase in the daily average population, the number of jail offences fell from 37,305 in 1909 to 34,708 in 1910, the decrease occurring in offences relating to work (2,696) and prohibited articles (403). The number of

offences dealt with by Courts increased by eight, those relating to assaults, mutiny and escapes by 317, and miscellaneous offences by 177. Of 1,199 assaults committed during the year, it is satisfactory to note that none proved fatal. Whippings were inflicted on 125 prisoners: of these 86 were habitual and 39 were casual prisoners. There were five escapes, against two in 1909. Of the escaped prisoners four were re-captured within the year and one is still at large. The daily average number of habitual prisoners in confinement was 5,813, or 41·73 of the total daily average population. Considerably more than half of all the prison offences were committed by habituals. CHAP. III.—PROTECTION.

64. The net cost of maintenance of prisoners per head rose from Rs. 48 to Rs. 49-13-0. The saving to Government arising from the employment of prison labour on jail works and repairs was Rs. 22,449-14-9, as compared with Rs. 24,906-7-0 in 1909. The value of the convict labour supplied to the Jail Branch Press is estimated to have been worth Rs. 56,852, but no credit for this amount is taken in the jail accounts. The value of vegetables raised in the jail gardens increased from Rs. 81,258 to Rs. 85,856, whilst the estimated value of farm produce fell from Rs. 26,393 to Rs. 25,787. Financial.

65. The health of the prison population was satisfactory; the death-rate for 1910 (11·98 *per mille*) was the lowest on record for the past eighteen years, except for that (11·88) of 1907, an unusually favourable year. Henzada (38·52), Kyaukpyu (37·19), Mogôk (30·11), Kindat (28·40) and Bhamo (28·39) show the highest percentage of opium consumers admitted to jail. Vital.

66. After consideration of the proposals of the Select Committee for the working of the Meiktila Jail on the Borstal System, rules for its classification as a juvenile jail were framed by the Local Government, and were brought into force from the 1st June 1910. The boys were examined by the Deputy Inspector of Schools on the 3rd September 1910: his report was, on the whole, favourable. Considerable attention was given to physical drill and gymnastics, with good results as regards both discipline and health. The Inspector-General of Prisons, who visited the Meiktila Jail twice during the year, expressed himself satisfied with its general management and working and stated that, though it was too early to expect any marked results, he was convinced that a great deal was being done to improve the moral well-being of the boys. In the Rangoon Jail, a system of manual training for young habitual criminals was introduced. They work in a separate shed, each lad being provided with his own bench and set of tools, and are given individual instruction, both theoretical and practical, the object being to make them skilled workmen capable of carrying out the work without assistance. Thirty juvenile habitual criminals were subjected to this training, and the progress made was encouraging. A beginning was made with a similar class for young adults of the casual section. Instruction in needle-work is being given to female prisoners in the Mandalay Jail; the system is in its initial stage and the effect is not yet visible. The principle of the separation of habitual and non-habitual prisoners was, as usual, observed in all the jails of the Province. The structural alterations necessary to this end were nearing completion in two jails at the close of the year, but in four jails still await the provision of funds. The system of supervising habitual prisoners by paid agency, carried out as an experimental measure in the Insein, Mandalay and Myingyan Central Jails, was discontinued during the year, and the old system of guarding habituals by convict officers of the casual class re-introduced. The remission system continued to work satisfactorily, and is stated to be appreciated by the majority of the prisoners and to conduce to their good behaviour. As an act of clemency, on the occasion of the accession of the King-Emperor GEORGE the VTH, 8,403 prisoners out of a total of 13,668 in confinement on the 23rd May 1910 (including four prisoners sentenced to death) were granted remission. Religious instruction continued to be imparted by Buddhist monks to the prison population, and their ministrations are believed to have a good effect. Miscellaneous.

Civil Justice.

CHAP. III.—PROTECTION. Courts.

67. No changes came into effect in 1910 in the cadre of the Superior Judicial Service or the Provincial Judicial Service in Lower Burma, where Civil Justice was administered by four permanent and two temporary Judges of the Chief Court, 37 other European, and 130 Native Judges. In Upper Burma, there were two Judicial officers more than in the preceding year, the total figures being 53 European and 130 Native Judges. An Additional Judge of the Court of the Judicial Commissioner was entertained for the greater part of the year.

Suits.

68. Both in Upper and Lower Burma the number of suits instituted fell—in Lower Burma by 509, and in Upper Burma by 650 suits. The Judges of the Chief Court and the Judicial Commissioner of Upper Burma alike consider that the decline has now reached its lowest mark. The percentage of suits for money or moveable property to the total number of suits rose in Lower Burma from 88·6 in 1909 to 89·6 in the year of report, whilst suits for immoveable property decreased from 1,420 to 1,224, and mortgage suits from 2,665 to 2,332. The Judges consider that the reason for the decline in suits concerning land is to be found in the stricter administration of the Land Revenue law, which has, by more jealously regarding grants and transfers of land, rendered money-lenders less ready to accept mortgages of immoveable property as security for loans made. In Upper Burma, the percentage of suits for money and moveables to the whole number of suits also rose, from 90 to 91 per cent. The value of suits in the Lower Province fell by 18½, and in Upper Burma by 4½ lakhs of rupees. Disposals fell in both portions of the Province, and the number of cases pending at the close of the year fell also. The percentage of suits disposed of without contest remained in both Upper and Lower Burma at the same figure, within a fraction, as in 1909. The duration of contested cases rose from 79 to 84, and of uncontested from 45 to 53 days, in Lower Burma. Various reasons are suggested by district officers to account for the marked increase—the difficulty of securing the attendance of witnesses, increasing pressure of work, and changes of officers. In the opinion of the Judges, the probable cause is the increased duration of mortgage suits. Under existing orders, such a suit is shown in the returns as pending until the final order is passed, and in most cases a preliminary decree is first passed which is not made final for a period of months. These orders are now to be modified and, as durations will in future be calculated only up to the date of the preliminary decree, it may be expected that after 1912 durations will fall to a lower figure. In Upper Burma, the figures of duration varied little from those of the preceding year.

The number of miscellaneous cases before the courts of the Lower Province fell from 9,065 to 8,841, and in Upper Burma rose slightly, from 2,122 cases to 2,285. Execution cases in Lower Burma fell from 41,478 to 40,711, and the percentage of wholly infructuous applications rose from 55·2 to 56·1. Each of the past three years has shown a rising figure. Nevertheless, the amount realized in execution in 1910 was over two lakhs more than was realized in 1909, though that year showed the best figure up to date. Similarly, fewer applications for execution were received in Upper Burma, where also the percentage of wholly infructuous proceedings rose, the figures being 44·79 per cent. in 1909 and 45·81 per cent. in 1910. Realizations in execution dropped slightly in Upper Burma. The number of judgment-debtors imprisoned fell throughout the Province. Insolvency cases in Lower Burma decreased from 519 to 471. Detailed analysis of the figures in the returns cannot profitably be made, as the method according to which the statistics are supplied is of doubtful accuracy, but District Judges are stated to be universally of opinion that the Provincial Insolvency Act as enforced in the Province is simply a means to avoid imprisonment, and has therefore failed in its object. In Upper Burma, the number of these proceedings rose, and in fifty per cent. of the cases, as against 47 in the previous year, the discharge of the judgment-debtor was granted. In Upper Burma, out of 448 headmen empowered to try Civil cases under the Village Act, only 238 exercised their powers: they disposed of 1,978 cases, there being a diminution in the number

of headmen who used their powers and in the number of cases tried, although the headmen empowered rose in number.

Appeals.

69. Appeals from Township to District Courts in Lower Burma fell from 2,072 in 1,974. The number of appeals disposed of was 2,035 : the percentage of confirmation varied fractionally only from the figure of 1909. The average duration rose from sixty to 61 days. The number of appeals preferred to Divisional Courts in the Lower Province fell from 575 to 451, whilst the average duration rose from 105 to 110 days. The percentage of confirmation of the decree of the Lower Court fell from 67·9 to 65·1.

In Upper Burma, 1,677 appeals were preferred to District Courts, against 1,598 in 1909 : those disposed of were fewer by fifty. The average duration rose by as much as six days. Divisional Courts had twelve appeals before them, against eighteen in 1909, but he average duration rose from 45 to 66 days.

The Chief Court.

70. The number of suits instituted on the Original Side of the Chief Court was 521, or four more than in 1909 and 83 more than in 1908, but the aggregate value of suits fell by seven lakhs of rupees. Disposals numbered four less than in 1909, and the number of pending cases at the end of the year rose from 534 to 613. Of the suits disposed of, 36·2 per cent. were contested, against 33·9 in 1909, and plaintiffs were successful in a smaller percentage of the contested cases than in the preceding year. The average duration of contested cases rose from 408 to 429 days : and of uncontested cases fell from 258 to 244 days. Ten and a-half lakhs of rupees were realized in execution, against three and a-half lakhs in the earlier year. Under the Insolvency Act, eighty cases were disposed of, against 148 in 1909. On the Appellate Side, the number of regular appeals fell from 475 to 393, but disposals also fell, from 460 to 356, and the average duration continued to rise, the figures for the three past years having been 280, 297, and 314 days. There were 431 appeals pending at the end of the year, against 394 in 1909 and 379 in 1908. Decrees were confirmed in 68 per cent. of the cases, the corresponding figure for the earlier year being 66·1. There were 27 more cases taken up in Revision and fifteen fewer Revision cases were disposed of. The congestion of business in the Chief Court indicated by the details given was largely due to the trial of cases connected with the misappropriation of funds of the Government Kheddahs, and was only partially relieved by the appointment of two Additional Judges, one for the whole year, and one for eight months.

The Court of the Judicial Commissioner, Upper Burma.

71. Three hundred and forty-seven appeals were instituted in the Court of the Judicial Commissioner, Upper Burma, against 406 in the previous year : 397 were disposed of, against 435 ; the Additional Judge disposed of 195 appeals. The percentage of confirmation fell from 65·98 to 61·46. The duration of appeals averaged 232, against 249 days. There were 203 cases before the Court of the Judicial Commissioner in Revision, against 188 cases in the earlier year, and the percentage of confirmation varied little from the figure of 1909.

General.

72. The new Chief Court building in Rangoon was occupied in April 1910. The Lower Burma Courts Manual was under revision during the year.

Registration.

Registration Offices and summary of results.

73. There were 153 Registration Offices at the close of 1910, an increase of one in Lower, and two in Upper, Burma over the figures of the preceding year. The total number of registrations in Book I (compulsory and optional registrations of immoveable property), Book III (Wills and authorities to adopt), and Book IV (registrations affecting moveable property) in Lower Burma rose from 39,942 in 1909 to 45,014 in 1910, whilst the value of the property affected rose from 555 to 633 lakhs of rupees. In Upper Burma, the number of registrations in the three Books declined from 8,979 to 8,243, but the value of the property affected rose by nearly three, to 89 lakhs. The total income realized from registration was some

CHAP. III.—PROTECTION.

Rs. 8,000 greater than in 1909. The number of compulsory registrations affecting immoveable property in Lower Burma was 39,415, an increase of nearly five thousand over the figure of 1909; and the aggregate value of the property concerned rose from 506 to 581 lakhs. The number of documents registered in 1910 was, however, still below the figures of 1906. In Upper Burma, the number of such documents registered has decreased steadily since 1908, the figures for each year of the triennium being—9,618, 8,365, and, in 1910, 7,641. The value of the property concerned declined from 105 lakhs in the earliest year to 82 in 1909, and showed a slight increase, to 86 lakhs, in 1910.

Sales and mortgages.

74. Instruments of sale and mortgage form the bulk of the compulsory registrations affecting immoveable property, other instruments being comparatively few in number. In Lower Burma, instruments of sale of the value of Rs. 100 and upwards rose by more than 3,000 during the year, to 21,313, and the value of the property covered rose by 62 lakhs. The average value was Rs. 1,573 in 1910, as against Rs. 1,517 in 1909. The number of mortgages registered rose from 14,045 in 1909 to 15,580 in 1910, whilst the aggregate value recovered slightly, from 179 lakhs in the earlier to 186 in the later year. The average value fell from Rs. 1,274 to Rs. 1,199 As in the Lower Province, mortgages, and sales of the value of Rs. 100 and upwards, form the bulk of the compulsory registrations in Upper Burma but there, in contradistinction to Lower Burma, mortgages are more numerous than sales. Of instruments of sale of Rs. 100 and upwards, the number rose from 2,383 to 2,452, whilst there was a disproportionate rise in the value of the property concerned—from 26 to 59 lakhs. Registrations in the Magwe District alone account for a rise of more than 32 lakhs, the increase being due to enhancement in the price of oil-wells and sites, owing to the competition between the various companies now at work in the Yenangyaung oil-field. Mortgages in Upper Burma fell from 4,750 to 4,256, and their aggregate value from 37 to 22 lakhs.

General.

75. Registrations affecting moveable property in Lower Burma rose in number from 5,043 to 5,382, and in aggregate value from 43 to 46 lakhs, whilst in Upper Burma both the total number and aggregate value fell slightly when compared with the preceding year. Refusals to register, over the whole Province, fell by two, to 188. Default of appearance by the executants of the document is the usual reason for refusal. Searches and applications for copies rose in Lower Burma from 1,703 to 2,159, and fell in Upper Burma from 202 to 180.

Joint Stock Companies.

Companies.

76. Twenty-seven new Joint Stock Companies limited by shares were registered during the year 1910-11 and sixteen companies ceased to work, these changes making the total number of companies working at the end of the year 115. Five of the new registrations were rubber companies, and eight companies connected with mineral oil. Their aggregate nominal capital exceeded 209 lakhs of rupees. In the previous year there had been 23 new companies, with 228 lakhs of nominal capital. Thirty-six companies increased their capital, all but one of the number increasing the paid-up capital; the aggregate increase of paid-up capital was, within a few rupees, 217 lakhs. This figure in large measure represents the original payments of capital to companies registered in the preceding year. Two rice-milling companies together called up more than seventy, and seven oil companies together more than 115 lakhs of capital. In the preceding year the aggregate increase in paid-up capital had been 58¾ lakhs. Six companies reduced their paid-up capital against one in 1909-10; the aggregate reduction was 6¼ lakhs, against three lakhs in 1909-10. Sixteen companies, having an aggregate nominal capital exceeding 225 and a paid-up capital exceeding 32 lakhs of rupees, wound up their business during the year: in the previous year four companies, with a paid-up capital of four lakhs, were wound up. The Mount Pima Mining Company (eleven lakhs) and two oil companies (16¾ lakhs) account for nearly 28 out of the 32 lakhs of paid-up capital belonging to companies wound up

during the year. One new company limited by guarantee was formed, and brought the number of such companies operating in the Province to seven.

Local Boards Administration.

77. There are no Local Boards in Burma. The District Funds in Upper, and the District Cess Funds in Lower Burma are administered by the Deputy Commissioners of the districts to which they belong. Some account of their receipts and expenditure is given in Chapter V (*Revenue and Finance*).

Municipal Administration.

Rangoon Municipality.

78. The figures of receipts and expenditure of the Municipality of Rangoon are recorded elsewhere in this Report (Chapter V, paragraph 183). The incidence of taxation, calculated on the Census population of 1901, rose from Rs. 11-9-9 in 1909-10 to Rs. 12-6-5 in 1910-11. There was an excess of ordinary income over ordinary expenditure of 2¼ lakhs of rupees, and it was not necessary to impose fresh taxation. The process of revision of assessments added more than half a lakh to the recorded monthly rental value of private properties. The question of the assessment of Government property was decided: in lieu of Municipal taxes Government are to pay in future 7½ per cent. of the total demand of taxes from private properties. The question of the disposal of rubbish was under consideration, but no decision was reached. Active measures were taken to deal with the disease glanders, which was found to be prevalent among the hackney-carriage ponies. Many animals had to be destroyed, and the stringent measures employed led to a strike among the owners, who removed all their ponies from Rangoon. Liberal compensation was, however, granted to the owners of condemned animals, and this, with the adoption of other conciliatory means, removed the causes of friction and by the end of May 1911 all hackney-carriage ponies within the Municipality had been tested for the disease. The general death rate among human beings was lower than in any year since plague first broke out in 1905, though there were more deaths from that disease than in 1909. The wholesale milk supply is reported to be still disgracefully impure. The existing byelaws could be used to control retail dealers, but the difficult question of supervision of the supply at its source remains up to the present unsolved, as do other important questions, such as the erection of model barracks for coolies. Municipal vaccination progressed satisfactorily, the figures of primary vaccinations, revaccinations, infantile vaccinations and successful vaccinations all showing advances. The Town Lands Reclamation Fund was constrained to curtail works, as its financial capacity was found to be unequal, at present, to the execution of the ambitious scheme originally planned.

Minor Municipalities.

79. The number of Municipalities, excluding Rangoon, rose to 45 through the substitution of a Municipality for a Town Committee at Insein. The area of the Thônzè Municipality was increased by the inclusion of the Civil Station of Tharrawaddy. The population within Municipal limits at the Census of 1911 was only 15,097 greater than at the previous Census, a large decline in Mandalay counterbalancing much of the increase elsewhere. The incidence of taxation varies from Rs. 4-9-4 at Moulmein to As. 0-4-8 at Taungdwingyi. Revision of assessments was undertaken at Insein, Bassein and Moulmein, and taxes of various kinds were imposed in Akyab, Myanaung, Kyaukpyu, Thayetmyo, Yandoon, Moulmein, Syriam and Mandalay. The total of the grants and contributions received rose from 4¼ to more than five lakhs of rupees: the amount sanctioned for plague measures was again small, Rs. 60,000 only. Mandalay received three-quarters of a lakh for the purpose of acquiring land and for drainage. Kyaiklat received Rs. 34,000, Bassein more than a quarter of a lakh, Thayetmyo Rs. 15,000, and Minbu Rs. 12,000 for water-supply; the estimates for the Kyaiklat scheme have been sanctioned, and work has commenced at Bassein, Thayetmyo and Minbu.

CHAP. III.—PROTECTION.

Kyaukpyu received Rs. 10,000 for sanitation, and Pyinmana the same amount for markets. Syriam benefited by contributions of Rs. 40,000 from the Hanthawaddy District Cess Fund and Rs. 20,000 from two mercantile firms towards the erection of a Hospital. The water-works at Moulmein and Akyab continued to provide good supplies: extensions were made at Moulmein and are contemplated at Akyab. There is a proposal to filter the river water in a floating tank at Prome, and projects of water-supply have reached various stages of maturity for Pegu, Mandalay, Pyinmana and Yamèthin. Tube wells were sunk in three Municipal areas. The prevention of plague continued to be the main object of sanitary measures in most towns. At Prome, Paungdè, and Mandalay improvements to houses were carried out, and efforts are now mainly directed to secure the construction of houses which are easy to clean and afford the minimum harbourage for rats. Drainage schemes were sanctioned for Akyab, at a cost of four lakhs of rupees, and Moulmein, at a cost of Rs. 63,000. In several low-lying towns such as Pyapôn and Kyaiklat it was decided to precede drainage by reclamation, and a combined drainage and reclamation scheme has been sanctioned for Syriam. New hospitals were opened at Mergui and Sandoway, and the Syriam hospital is nearing completion. The attendance at most hospitals continued to advance. Out-door dispensaries were opened at Pakôkku, Paungdè and Henzada The prior urgency of sanitary improvements led to a decline of Rs. 33,366 in the expenditure on public works. At Mandalay the grant was insufficient even to keep existing roads in repair, but Moulmein has an available source of road-metal at hand and spent more than half a lakh of rupees on roads. Two Municipal Schools—at Ma-ubin and Myanaung—were taken over by Government. Bassein, Akyab, Kyaiklat, Insein, Henzada and Toungoo received loans during the year.

There were seventeen areas notified under the Municipal law, or one more than in the preceding year, the conversion of Insein into a Municipality being set off by the addition of Nattalin and Pyawbwè to the number of notified areas.

Military.

Strength of the garrison.

80. The total strength of the troops forming the garrison of Burma at the end of March 1911 was 9,951 officers and men, of whom 3,614 were Europeans, against 11,372 officers and men, of whom 4,726 were Europeans, at the end of the preceding year. The decrease was due to reduction of the strength by one battalion of British Infantry, which was withdrawn towards the end of 1910.

Military works.

81. The expenditure on Military works fell from 6¼ to six lakhs of rupees, 1¼ lakhs going to new works. With the exception of a gymnasium, the provision of accommodation for a full battalion of British troops at Maymyo is now practically complete. Additional temporary quarters for sixteen families were completed at Shwebo, at a cost of Rs. 18,750. The mat walls of the native barracks at Meiktila were replaced with planking, and improvements were made to the married men's quarters at the same station. A sum of Rs. 9,500 was expended on completing the work of raising the stop-butts of rifle ranges in Mandalay.

Military (Volunteering).

82. There were six Volunteer corps in Burma during the year of report: three of these —the Rangoon Port Defence Volunteers, the Rangoon Volunteer Rifle Corps and the Burma Railways Volunteer Corps—have their headquarters at Rangoon: two, the Moulmein Volunteer Rifle and Artillery Corps, at Moulmein: and one, the Upper Burma Volunteer Rifles, at Mandalay. The total strength of the six corps at the close of March 1911 was 3,136 adults, 465 cadets, and 180 reservists, an increase of 95 on the figures of the preceding year. The number of efficients, excluding reservists, rose from 3,381 to 3,448. These figures do not include the strength (46) of the South Andaman Volunteer Rifle Corps, which for administrative purposes is attached to the Rangoon Volunteer Rifle Corps. The

capitation and other grants earned, exclusive of those earned by the Andaman Corps, decreased from Rs. 1,33,641 to Rs. 1,29,876. Arrangements for reorganizing the Rangoon Port Defence Volunteers were under consideration during the year, and the formation of a Cyclist Company, as an additional Company to be attached to the Rangoon Volunteer Corps, was sanctioned. CHAP. III.—PROTECTION.

Marine.

83. From the 23rd September 1910 the establishments of light-houses came entirely under the administration of the Marine Department. The improvements to the Alguada Reef Light-house which had been in progress since 1899 were completed during the year 1910-11, at a cost of Rs. 46,059. A further sum was spent on closing the chasm at the reef, bringing the total expenditure on this work to Rs. 31,240. The work has been only partially successful, as a portion of the sea-wall has been undermined, but the part opposite the light-house remains undamaged and is expected to produce the desired effect of preventing the chasm from widening and stopping the vibration from which the tower used to suffer during storms. Improvements to the Double Island Light-house, by which immunity from fire and better ventilation have been secured and the candle power of the light raised from 4,500 to 35,000, were practically completed, at a total cost of Rs. 20,740. The apparatus for improving the light on Savage Island arrived from England, and will be fixed in 1911-12. The incandescent lights installed in 1909 at Table Island, Green Island and the Alguada Reef have proved greatly superior to the old lights. The only light-houses remaining to be improved are those at China Bakir and Reef Island. A project is being framed to erect a light-house at Elbow Point on the Tavoy river, and arrangements have been made to install a beacon on the North Terrible Rocks, off Kyaukpyu. Improvements to the boat-dock at Double Island were commenced, and the possibility of improving landing facilities at the Alguada Reef is under consideration. The light at Victoria Point continues to give satisfaction. The vessels of the British India Steam Navigation Company did not touch at Sandoway during the fair season of 1910-11, and the Wigham's light was accordingly not exhibited off the west end of Zallataung Island. The Royal Indian Marine Steamer *Mayo* was the Station Vessel throughout the year, and was employed among other duties in visiting the light-houses and light-ships. The light-ships *Kemmendine*, *Kalagauk* and *Danidaw* were overhauled and some repairs were carried out to the relief light-ship *Martaban*. There were eighteen cases of beriberi among the light-house and light-ship crews, against 39 in the previous year, but only one case proved fatal, as compared with six cases in 1909-10, and the health of establishments on the whole was good. At Alguada and Beacon Islands, where men had in past years suffered considerably, reliefs were carried out every two, instead of three, months and the change is reported to have been beneficial. The total expenditure on light-houses and light-ships rose from Rs. 1,68,133 to Rs. 1,83,278. The cost of repairs by the Public Works Department fell slightly, to Rs. 21,429. Charges on account of establishment, provisions, oil, stores and contingencies, etc., increased from Rs. 1,26,911 to Rs. 1,41,723. The receipts from Burma Coast-light dues amounted to Rs. 4,35,964, against Rs. 4,22,253 in the preceding year, and from the 1st May 1911 the rate at which the dues are levied was reduced provisionally, for a period of three years, from one anna and two pies to one anna and one pie per ton of burden. Light-houses and light-ships.

84. The ordinary revenue for the year 1910-11 rose from $29\frac{1}{4}$ to $34\frac{3}{4}$ lakhs of rupees, and the ordinary expenditure, by more than one lakh, to $34\frac{1}{2}$ lakhs. There was thus a small excess of revenue over expenditure, against a deficit of more than four lakhs in the preceding year. The expansion in ordinary revenue was due chiefly to an increase, from one and a-half to four annas per ton, in the rate at which the River Due was levied. The change had effect from the 1st of August 1910, and increased the receipts by a sum of nearly $3\frac{1}{2}$ lakhs. The Port Administration, Rangoon.

CHAP. III.—PROTECTION.

growth in ordinary expenditure was due to an increase of more than a lakh under the head of interest and sinking fund. If that head and the debt accounts are excluded, the difference between the expenditure of the year and that of 1909-10 was of trifling amount. Including debt accounts, the revenue of the year was 42¾ and the expenditure 45¾ lakhs. A loan of six lakhs was raised, at an average price of Rs. 94-10-0, and the capital indebtedness of the Port Commissioners amounted to 245 lakhs at the close of the year. Sinking and reserve funds had at their credit 14½ and 5¾ lakhs respectively, but these amounts are stated to be insufficient, and the question of increasing the annual grant towards amortization of debt is under consideration. The revenue of the Traffic Department amounted to nearly twenty-one lakhs, an increase of some thirteen per cent. on the figure of 1909-10: rents of godowns rose by nearly half a lakh: of lands, by more than that amount: and receipts from dues on goods landed from sea-going vessels—the largest item of revenue in the department—by Rs. 65,000, to nearly eight lakhs of rupees. Expenditure declined by half a lakh. The net annual profit of this department now approaches five lakhs of rupees. Approximately 54 per cent. of the seaborne imports into Rangoon, which are estimated to have reached nearly one million tons, passed over the Commissioners' premises, the remainder being landed on private jetties and foreshore: of the exports, estimated at more than 2½ million tons, only ten per cent. used their wharves. No addition to the wharf accommodation for sea-going vessels was made during the year, and existing facilities are stated to be, on the whole, sufficient. Among minor works carried out were the laying of two new swinging moorings, bringing the number of these to 26, and of an additional block of fixed moorings, and the dredging—at a cost of more than a lakh of rupees—and buoying of the new King's Bank channel. Progress on the river-training scheme continued, and in the course of the year the Government of India sanctioned the Commissioners' estimates, amounting to 134 lakhs gross and 117 lakhs of rupees net. The estimates are, however, already partly out of date and in process of revision, among important deviations from the original project being a reduction in the number, coupled with an increase in the size, of the brushwood mattresses which form the foundation course of the training wall; an extension of the area of the 'apron' at the eastern end of the wall: and the utilization of stone from inland quarries, as well as from the Kalagauk Island. The latter source of supply is proving more costly than was anticipated, and the revised estimate for the whole scheme may amount to not much less than 150 lakhs of rupees gross. Work on the laying of the mattresses was accelerated, and all had been deposited by the end of July 1911, seventeen months in advance of the anticipated date. The expenditure of the year on the Rangoon portion of the river-training project amounted to nearly eighteen lakhs. Quarrying at Kalagauk continued and altogether 7½ lakhs of rupees were spent on quarrying.

The work of reconstructing the Sule Pagoda wharf went on: it was found necessary to dismantle part of the retaining wall, at a cost of a lakh, and actual construction work cost an additional sum of half a lakh. The general financial position of the Port Trust required careful watching, and little could be done to develop the estates recently acquired by the Commissioners at Botataung and Pazundaung. At the end of the year it was decided to propose an amendment of the Rangoon Port Act, mainly for the purpose of carrying into effect the recommendations of the Rangoon Foreshore Committee.

Pilot service, Rangoon.

85. The Pilot Fund opened with a balance of Rs. 74,495 and closed with a balance of Rs. 1,01,916. Receipts exceeded 3¼ and the expenditure was slightly over three lakhs. The gross pilotage receipts amounted to Rs. 3,20,568, a sum of Rs. 4,092 more than in the previous year. The amount disbursed to pilots decreased slightly, to Rs. 1,83,854. A sum of Rs. 21,000 was added to the Depreciation Fund, which stood at Rs. 97,152 at the close of the year. A proposal to invest the Port Commissioners with full control over the pilots was not accepted by Government, but certain powers were delegated to the Chairman of the Port Commissioners under the British Burma Pilots Act, 1883, and it is expected that this will enable enquiries under the Act to be held more expeditiously. Proposals for the amendment of the Pilot rules and the Pilot leave-rules were considered:

the former have, since the close of the year, been submitted for the sanction of Government. CHAP. III.—PROTECTION.

86. Excluding the Rangoon Port Trust, there are six ports in Burma for which separate Port Funds are maintained, namely, Bassein, Moulmein, Akyab, Mergui, Tavoy and Kyaukpyu. The receipts of these funds fell from Rs. 6,82,558 to Rs. 4,06,921. The figures for the previous year included, however, loans, amounting in all to Rs. 1,55,000, taken from Government by the Bassein, Moulmein and Tavoy Funds. If these special receipts are deducted, the figures for the years 1909-10 and 1910-11 were Rs. 5,27,858 and Rs. 4,06,921 respectively. The total expenditure decreased by Rs. 3,05,039 to Rs. 4,32,257, and the closing balance from Rs. 2,88,623 to Rs. 2,63,286. All the funds were solvent at the close of the year. Minor ports.

Outside Rangoon, there are Pilot Funds at Akyab, Bassein and Moulmein. They receive the fees for pilotage, and disburse the earnings of the pilots, charges for the upkeep of pilot vessels, and some other expenses. The funds opened the year with a total balance of Rs. 29,112, their receipts amounted to Rs. 1,17,767, their expenditure to Rs. 1,23,888, and the closing balance was Rs. 22,991. Port Officers appointed by Government, and assisted by Advisory Boards, continued to manage the ports of Akyab, Moulmein and Bassein, and during the year powers were delegated to the Boards to write off overpayments made in error from, and losses of stores belonging to, Port Funds, provided that the members of the Board were not responsible for the overpayment or loss. At ports where there are no Advisory Boards, the Commissioner of the Division was empowered to write off such overpayments or losses. The administration of the ports of Tavoy, Mergui and Kyaukpyu is in the hands of the Deputy Commissioner. These three ports have no Pilot Funds.

87. Four hundred and fifty-one vessels of all kinds entered ports in Burma from foreign countries in 1910-11, as against 492 in the preceding year. The total tonnage was, however, greater by more than 40,000 tons. The number of steam vessels fell from 437 to 421, but the aggregate tonnage rose from 1,006,453 to 1,048,289. The number of sailing ships and their total tonnage were thirty and 11,332, as compared with 55 ships and 12,563 tons. Three hundred and seven steamers, with an aggregate tonnage of 845,193, entered Rangoon from foreign countries, the corresponding figures for the previous year being 302 and 765,833; five sailing ships visited Rangoon, against three in the earlier year. Commercial Marine: shipping.

The number of steamers and sailing ships engaged in the coasting trade which entered ports in the Province fell from 3,843 to 3,437, of which 2,199 were steamships, but the total tonnage increased from 2,584,880 to 2,604,198 tons. One thousand and sixty-one, or slightly less than half the total number of steamships, came into Rangoon, whilst only 144 sailing ships, as against 171 in 1909-10, entered that port. Rangoon accounted for 1,720,685 tons out of the total coasting tonnage of 2,604,198 tons, the figures for the previous year being 1,805,827 and 2,584,880 tons respectively.

The average size of the steamships visiting Rangoon increased. The number of such vessels of above 5,000 gross registered tonnage rose from 202 to 228, and eleven steamships of 29 feet draft left the port, against five in 1909-10. Of the 451 steamers and sailing vessels entering ports in Burma from foreign countries, 335 or 74·28 per cent. were British, and 41 British Indian. The percentage of British ships in the preceding year was 66·26. Seventy-five vessels sailed under a foreign flag, as against 102 in 1909-10. The number of German vessels fell from 61 to 35, and of Dutch vessels from fifteen to eight. Japanese vessels advanced from one to eight.

88. In all, there were in 1910-11 within the jurisdiction of the Port Commissioners of Rangoon 36 casualties to shipping—an abnormally high number. Sixteen occurred to vessels in charge of Assistant Harbour Masters, seven to vessels in charge of licensed pilots, six to vessels in charge of special pilots, and seven to vessels in charge of masters and serangs. The most serious casualty was Commercial Marine: wrecks and casualties.

CHAP. III.—PROTECTION.

the grounding and subsequent total loss of the Government steam-launch *Gunner*: one European officer and two gunners of the Royal Garrison Artillery were drowned in this accident. A Court of Enquiry was held, and the proceedings were ultimately submitted for the orders of the Government of India. Courts of Enquiry were held in three other cases, one of which concerned the grounding in the Gulf of Martaban of the steam hopper-barge *Curlew*, which sustained severe damage, and another a collision between two vessels, one of which sank. In all three cases the officers responsible received punishment or reprimand. Three accidents were attended with loss of life, namely, the sinking of the *Gunner*, the case of collision mentioned and a case of fire on a motor-launch. The chief feature of the year's casualties at Rangoon is stated to have been the comparatively large number of accidents to motor-launches, and the propriety of regulating by legislation the construction and employment of these vessels is recommended in the report. None of the accidents which occurred in the Rangoon River to vessels in charge of licensed pilots was serious.

At other ports there were three accidents involving the appointment of Courts of Enquiry. The steamer *Tannenfels* grounded in the Bassein River whilst in charge of a pilot, who was, in the conclusion, visited with a warning. Two Courts of Enquiry were held at Moulmein in connection with the grounding of vessels. In one case the pilot was censured for want of judgment: the pilot concerned in the other was reduced in grade for a year and received a warning.

Government steamers and launches.

89. The Royal Indian Marine vessels *Sladen* and *Bhamo* carried by river over eight thousand troops and followers, besides convicts, transport animals, ammunition, 10,272 tons of stores, and 73¾ lakhs of specie. Their earnings fell from Rs. 2,33,151 to Rs. 1,76,932. Three new steam launches and one motor-launch were added to the Government flotilla, whilst one steam launch was sold, these changes leaving at the end of the year 131 vessels of all descriptions, comprising 82 steam launches, eleven house-boats, eleven flats, six barges, four light-ships, three dredgers, three steam cutters, two motor-launches, two buoy vessels, two water-boats, two mooring boats, one schooner, one rock-smashing boat, and one boat for the conveyance of transport animals. The increase over the strength of the flotilla (113) shown in the previous report is apparent only, being due to the transfer to the general list of the Government light-ships and other vessels which were borne on a separate list in past years. The amount earned by Government vessels in Lower and Upper Burma was Rs. 5,17,917, or Rs. 37,451 more than in 1909-10. The expenditure on the maintenance of these vessels, including 4 per cent. interest on their estimated present value, increased by Rs. 65,626, to Rs. 7,83,533. Twenty launches earned more than the cost of their upkeep. The Lower Burma vessel *Custodian*, which was employed partly in keeping the coal depôts in the Delta districts supplied with coal and partly on transport duty between Rangoon and Mandalay, earned Rs. 32,983, showing a profit of Rs. 15,216 on the year's working: one Upper Burma vessel showed a profit of Rs. 21,896, and two others over Rs. 13,000 each. All the vessels were kept in a state of efficiency.

Marine works and surveys.

90. A new survey of the Rangoon Harbour, from Kemmendine to the Pegu river and thence to the works of the Indo-Burma Petroleum Company on the east bank, and to the King's Bank Battery on the west, was completed, and a survey of the mouth of the Rangoon River from Elephant Point to the Fairway Buoy was also carried out. The channels at the mouth of the river remained steady, although erosion continues in the vicinity of Elephant Point. The Hastings Sand below Rangoon continued to work to the northward: the Monkey Point dredged cut channel silted up, was re-dredged, and again silted up. The dredging of the King's Bank Channel has been mentioned above, with other works of importance carried out in the river. The shore light-stations gave no trouble. Certain lights were moved in order to increase their utility, and an experiment was tried with an acetylene gas buoy. All the buoys which at present burn petroleum will probably be replaced by acetylene gas buoys as funds permit; the latter are more efficient and, although their initial cost is greater, there is a saving in the cost of maintenance.

Away from Rangoon, a landing stage of reinforced concrete was completed at Kyauktan in the Pegu District, and wharves were built at Labutta, Myaungmya, Thayetkôn and Kangyi in the Myaungmya District. The reconstruction of the Bazaar pier and pontoon landing-stage at Akyab was finished, at a cost of Rs. 27,657. At Bassein seven jetties were reconstructed, at a total cost to the Port Fund of Rs. 64,405. The Royal Indian Marine steamer *Investigator* continued the survey of the Tenasserim Coast southward from White Point towards the entrance of the Pakchan river. Two officers of the Royal Indian Marine had been deputed in November 1909 to survey the Bassein River. The survey was completed in March 1911, and since the close of the year the preparation of the charts has also been completed.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

REFERENCES:—

Report on the operations of the Department of Agriculture, Burma, for the year ending the 30th June 1911.

Annual Report on the Civil Veterinary Department, Burma, for the year ending the 31st March 1911.

Season and Crop Report of Burma for the year ending the 30th June 1911.

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1911.

Annual Report on the working of the Co-operative Credit Societies Act in Burma for the year ending the 30th June 1911.

Administration Report of the Irrigation Department, Burma, for the year 1910-11.

Agricultural Statistics of India, Volume I.

Area and Yield of certain principal crops in India.

Annual Report of the Agri-Horticultural Society of Burma for the year 1910.

Reports on the Forest Administration in Burma for the year 1910-11.

Report on the Census of Burma, 1901.

Resolution on the Reports on the working of the Indian Factories Act in Lower Burma for the year 1910.

Report on the Maritime Trade and Customs Administration of Burma for the official year 1910-11.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1910-11, Part I, Foreign Trade, and Part II, Coasting Trade.

Review of the Trade of India.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volumes I and II.

Annual Statement of the Coasting Trade and Navigation of British India.

Report on the Transfrontier Trade of Burma and the adjoining Foreign Countries during the year 1910-11 and the triennial period ending the 31st March 1911.

Administration Report of the Public Works Department, Burma (Buildings and Roads Branch), excluding Irrigation, for the year 1910-11.

Statistics of British India, Parts I, II and III.

Agriculture.

The Agricultural Department.

91. For the greater part of the year 1910-11 two European agricultural experts only, the Deputy Director and the Agricultural Chemist, were attached to the Department. At the close of the year the services of a third officer became available. The Province was divided for administrative purposes into two circles, a Southern Circle comprising the whole of Lower Burma and two Civil Divisions of Upper Burma, and a Northern Circle, which takes in the remainder. There was no change in the subordinate staff. A scheme was prepared for the creation of a staff of district vernacular agriculturists, to serve as intermediaries between the Agricultural Department and the various Co-operative Credit Societies and the public generally.

Agricultural research and experiment.

92. The whole area of the Agricultural Station at Mandalay, amounting to 430 acres, has now been cleared of jungle growth and is fully utilized. The station at Hmawbi is still in its infancy and without buildings or equipment, but thirty-two acres were laid out during the year for the experimental cultivation of rice. The experimental garden at Sinlumkaba in the Bhamo District continued to be employed as a training-ground for the pupils of the Government Model School. The garden at Taunggyi in the Southern Shan States again gave disappointing results. The Myitkyina garden did well and its abolition is foreshadowed, as the garden has shown what kinds of fruit-trees are likely to flourish in the locality. The three gardens in the Chin Hills—at Falam, Tiddim and Haka—produced satisfactory crops of vegetables, but little good fruit. They

are stated to be probably without effect, as yet, on the general cultivation in the hills. The net cost to Government of the six gardens was approximately one thousand rupees less than in the preceding year. The cultivation of the moisture-resisting variety of rice introduced by Government into the Akyab District extended. In some cases better prices were obtained for it than for the rice known as *necranzie*, and the variety appears now to be successfully established. The experimental cultivation of wheat continued in several districts, chiefly of the hilly regions, and in the Bhamo District, where the object in view is to reduce transport charges by growing a sufficient crop to supply each of the Military Police outposts, sowings were more successful. Groundnut may now be regarded as an established crop. Experiments with cotton continued at the Mandalay Station, but the best varieties have yet to be determined. Java tobacco was tried with success in the Pakôkku District.

The work of the Chemical Laboratory included 725 analyses, the majority of them determinations of silt and examinations of water, and reports on the typical soils of the Meiktila District and on the source, supply and agricultural value of silt in Burma. Among the enquiries in progress is one into the typical rice soils of the Province. The botanical research of the year was concentrated on the scrutiny of wheats, peas, and beans, and a survey of the Upper Burma varieties of rice was completed. In mycology little or nothing was done, owing to lack of the necessary staff.

Demonstration, Shows and general remarks.

93. For the same reason, no demonstration work has been undertaken up to the present. Advice was, however, freely given during the year, and a scheme for supplying cultivators with improved agricultural implements was prepared by the Department and sanctioned by Government. A grant of Rs. 600 was made to the Agri-Horticultural Show at Rangoon. Four cultivators' leaflets, three Bulletins, a Survey of the agriculture of the Sagaing District, and a preliminary Note on the classification of the varieties of rice grown in the Upper Province were published. Relations between the Department and the Co-operative Credit Societies remained intimate.

The Veterinary Department.

94. The strength of the subordinate establishment rose by three Inspectors and twelve Assistants. The Veterinary School at Insein, with which is combined a Veterinary Dispensary for purposes of demonstration, was open throughout the year, and a new school was established at Taunggyi, in order more conveniently to provide instruction for the Shans who will in future be employed as Veterinary Assistants to Chiefs in the Shan States.

Agricultural stock and cattle disease.

95. Agricultural stock on the whole enjoyed a fair year, though there was scarcely a district which was altogether free from rinderpest or anthrax or foot-and-mouth disease: outbreaks were, however, spasmodic. The districts in which they were most serious were Henzada, Minbu, Thayetmyo and Bassein. The figures of mortality from contagious disease again rose, the total number of cattle reported to have died thus being 39,204, an increase of 8,578 over the figure of 1909-10, and an approximation to the heavy mortality (40,753) recorded in 1906-07. As usual, rinderpest was the most destructive agency, being responsible for 29,222 deaths, as compared with 22,240 out of 30,566 deaths in the previous year. Severe outbreaks occurred in the Henzada, Minbu and Thayetmyo Districts. A serious epidemic of glanders broke out in June 1910 among the hackney-carriage ponies in Rangoon: 353 animals were destroyed in the year ending with March 1911, and the Municipality paid a sum of Rs. 33,000 as compensation to owners.

The substitution of bulls and bullocks for buffaloes continues; there was an increase of 68,615 in the former, as compared with a rise of 2,407 only in the number of male buffaloes, whilst buffalo calves are returned as fewer in number than in 1909-10. Except for buffalo calves, all descriptions of agricultural stock showed an increase in the year. Ploughs were returned at 503,543, against 463,317 in 1909-10; the increase may be attributed to more accurate enumeration. Carts are reported as having decreased from 651,464 to 593,627, but the figure

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

for one district alone (Pakôkku) fell by more than 62,000, so that it is clear that the figures of previous years were exaggerated, and that there was no such diminution in 1910-11 as the statistics suggest.

Pony and cattle breeding.

96. No breeding operations took place. An Agricultural Show was again held at Bhamo: the entries, although fewer than in the previous year, were numerous and the Show may be regarded as firmly established. The buffalo classes were again the best in number and quality, ponies and the cattle classes generally being disappointing.

Agricultural loans.

97. Advances under the Agriculturists' Loans Act amounting to 9¼ lakhs of rupees, *i.e.*, over a lakh and a quarter more than in 1909-10, were issued. In each of the Tharrawaddy, Pakôkku, Shwebo and Meiktila Districts, in the past two years together, more than a lakh has been given out in advances, and in several districts of the Dry Zone besides the three last mentioned these advances are freely utilized. Little difficulty is experienced in collecting due and overdue instalments. Remissions were trifling in amount. Suspensions totalled Rs. 82,370, against more than a lakh in the preceding year, and were chiefly granted on account of floods or other adverse agricultural conditions. The advances were utilized in large measure for the purchase of seed-grain and cattle. The instructions were amended in order to allow of advances being given out earlier in the year. As usual, little use was made of the Land Improvement Loans Act, the amounts advanced under which varied little from the figure of the preceding year.

Co-operative Credit Societies.

98. The number of Rural Co-operative Credit Societies increased from 252 to 450 in the year ending with June 1911: their membership rose by more than five thousand, to 11,340. Urban Societies increased from 22 to 27. Unions, which, besides supervising the working of and encouraging additions to the number of their affiliated societies, guarantee to a certain extent the debts of the component bodies, increased from eight, with 92, to 24, with 293 subordinate societies. The large increase in the number of Rural Societies testifies to the growth of popular confidence in the methods of co-operation, but not completely, since there were many applications for formation which could not, for lack of time and an adequate supervising staff, be entertained by the Registrar of Co-operative Credit Societies. The need of further increase in the staff is foreshadowed in the Departmental report, and additions have been sanctioned since the close of the year. There are now two Central Societies, lending to other societies only. Of these, the Pakôkku Central Bank was reorganized during the year, and a Central Co-operative Bank for Upper Burma was successfully established at Mandalay. A beginning was made with the formation of Cattle Insurance Societies, and there were six of these in existence at the close of the year: the societies do not, however, at present accept the risk of cattle dying from rinderpest. Excluding the amount of capital lent by Central to other societies, the aggregate capital of the societies more than doubled, rising from 7½ to 15½ lakhs of rupees. Of the capital contributed by non-members, a little over Rs. 16,000 only has been advanced by Government, whilst the total contribution of natives of the Province to the capital funds of the various societies was estimated at more than five lakhs at the end of June 1911. The close of the year was marked by the holding of the first Burma Co-operative and Agricultural Conference.

Protection from floods.

99. The construction and maintenance of embankments along the course of the Irrawaddy River and elsewhere in the delta of Lower Burma form an important part of the duties of the Irrigation Branch of the Public Works Department. Similar protective works, but on a smaller scale, exist along the Sittang River in the Pegu District. Capital and revenue accounts are kept for the Irrawaddy embankments proper, and only revenue accounts for the embankments of the Maubin Island and the Sittang embankments. The receipts attributed to embankments consist of the land revenue collected within the protected area, and of some

minor items. The area protected by embankments during the year 1910-11 rose, according to the Irrigation returns, by 6,179 acres, to the high figure of 651,850 acres. The advance was due to a large area coming under cultivation beneath the embankments for which both capital and revenue accounts are kept. The gross revenue from embankment works of all kinds rose from eighteen to nineteen lakhs of rupees but, as working expenses increased by Rs. 70,000, the net revenue was only Rs. 30,000 higher, amounting to fifteen lakhs, of which 10½ lakhs were contributed by the embankments for which both sets of books are kept. Special repairs were carried out on the Ngawun and Myanaung embankments of the Irrawaddy system, and a permeable dam, intended to protect the town of Henzada, was completed at a cost of more than Rs. 40,000 and acted efficiently. An important change took place in the channel of the Sittang River, the new course of which is shorter by 35 miles than the old. The change appears to have reduced the height and duration of floods and to have benefited cultivation in the adjoining low country. Other changes in the course of this river are taking place.

Weather and Crops.

Character of the seasons.

100. Neither in Lower nor in Upper Burma was the agricultural year 1910-11 so prosperous as its predecessor. In Lower Burma the rainfall was capricious and unevenly distributed, and the rice harvest everywhere suffered. In August the Irrawaddy rose to an unusual height, and floods destroyed the crops over large areas of low-lying land in several of the maritime and inland districts of Lower Burma. In Upper Burma, the districts outside the Dry Zone fared better than those within it, and the northern Wet Zone districts enjoyed a good harvest. In the Dry Zone, which includes the Magwe Division, the Meiktila Division (except Kyauksè) and the Sagaing and Lower Chindwin Districts, a prolonged drought followed an early burst of rain and ploughing and planting were delayed until August. The late rain was uneven, and failed altogether in Pakôkku. The irrigated districts of Kyauksè, Mandalay and Shwebo were more favoured and enjoyed a prosperous season. The annual rise in the Irrawaddy is a factor of considerable importance in the agriculture of the riverine districts. In 1910-11 the rise was both higher and more protracted than usual, and the rich deposit of silt ensured a good yield of tobacco and other silt-loving crops.

Area under cultivation.

101. The occupied area as shown in the returns fell by 1,399 acres, to 17,169,806 acres. The decrease is apparent only, being due to the reduction of the figures for the Pakôkku District by 62,000 acres, on the introduction of Supplementary survey and more accurate means of record. The occupied area in reality rose. The rate of increase in the Provincial figure has, however, become slower: in six districts only did the increase exceed 5,000 acres, as against seventeen in the preceding year. In Shwebo, a large decrease of occupied land within was almost balanced by a large increase outside the canal area. When graduated rates are introduced on completion of the Revenue Settlement of that area, it may be expected that the acreage under occupation in the district will again rise. The area of current fallows increased for the Province by fifteen per cent., from three and a half to nearly four million acres. In the Dry Zone districts of Upper Burma and in the Thayetmyo District, the increases in fallow area attributable to the failure of the early rains were great. Pakôkku returned an increase of no less than a quarter of a million acres; it is believed that the figures are inaccurate, though the increase must have been considerable. The area over which crops sown failed to mature exceeded that of the previous year by 14,000 acres. Floods along the Irrawaddy caused the loss of 104,000 acres in Hanthawaddy, 63,000 acres in Ma-ubin, and smaller, though considerable, losses in other districts. Ten Upper Burma districts reported a failed area of more than 10,000 acres, the maximum figure being 71,000 acres, in the Lower Chindwin District.

Area irrigated.

102. The irrigated area shown in the Season and Crop returns fell by 58,000, to less than a million acres. In the regions irrigated by Government canals—chiefly in the Shwebo, Kyauksè, Mandalay, and Minbu Districts—the two districts

CHAP. IV—PRODUCTION AND DISTRIBUTION.

first named reported decreases of 25,000 and 9,000 acres respectively. The fall in Shwebo was due to abandonment of the less favourably situated areas, and in Kyauksè is ascribed to excessive middle rains checking cultivation. Government reservoirs irrigated 15,000 acres less than in 1909-10. Eleven thousand acres of the decline are explained by the bursting of the Nyaungyan-Minhla embankment in the Meiktila District. Approximately seventy per cent. of the Provincial area estimated to be irrigable in a good year was irrigated in 1910-11. Ninety-six per cent. of the area irrigated was under rice, the only other staple which is irrigated to any extent being sesamum, in the Kyauksè District. The double cropping of irrigated areas is also all but confined to that district, and does not extend to more than 21,000 acres.

Cropped area.

103. The cropped area decreased during the year by four per cent. or more than half a million acres. The area under rice was, however, only 54,000 acres less than in 1909-10. In Lower Burma, there were large decreases in the Tharrawaddy and Amherst Districts: in Upper Burma it was not to be expected that the Dry Zone districts would be able to maintain under rice the large areas reported last, year, and in six districts the decrease amounted to 120,000 acres. Against this must be set off an increase in Shwebo and Katha of 72,000 acres. The area under red millet declined by over 100,000 acres, but the reduction in Pakôkku was 87,000 acres and the figures are not reliable. White millet declined by 15,000 acres. The scanty rainfall of June and July caused a diminution in the area under early sesamum of more than 200,000 acres, but the Pakôkku figures again introduce an element of doubt. The area under the late-sown variety of sesamum varied little from the figure of the previous year. The area under the various pulses rose by 42,000 acres, of which red beans contributed an increase of 22,000 acres. This crop is now of considerable importance, being grown on 150,000 acres. Cotton, in spite of the high prices prevailing, dropped from 202,000 to 170,000 acres. Groundnut also declined, the decrease being 38,000 acres. Of the minor crops, gram and maize lost ground, whilst tobacco and rubber advanced, the latter by 9,000 acres.

Prices.

104. The factor which determines the price of unhusked rice over most of the Province is the Rangoon demand. The estimated outturn of the 1910-11 rice crop in the principal exporting districts of Lower Burma fell much below the normal. In the final forecast the exportable surplus was placed at 2,580,000 tons of cargo rice, but after the forecast had been published the estimates of outturn in many districts were revised, as it was found that the crop was threshing out lighter than had been anticipated. The forecast of the previous year placed the exportable surplus at 2,450,000 tons, and the actual exports exceeded this by 125,379 tons. Up to the 30th June 1911, 1,844,721 tons had been exported against 1,895,830 tons up to the 30th June 1910. In consequence of the less favourable season and the restricted probable supply, the Rangoon market opened and remained abnormally high, and there is scarcely a district that did not report a better price than in 1909-10, although north of Shwebo the rise was small. Variations in the price at local centres are great, but, as indicative of the harvest prices ruling in the districts of the Pegu Division, the price at Tharrawaddy may be cited, namely, Rs 2 per maund of 82⅔ pounds of common unhusked rice, against the previous year's figure of Re. 1-8-0, and a normal price also of Re. 1-8-0. Prices in the districts which supply the Moulmein and Bassein markets are to some extent independent of Rangoon prices. In Moulmein, the short crop in Amherst and Thatôn led to the record price of Rs. 160 for one hundred baskets of unhusked rice being at one time paid, and the harvest price per maund was Rs. 2-5-0, against Rs. 2 in 1909-10, and a normal price of Rs. 2-1-0. In Bassein, though the European firms combined to keep prices down, the competition of native concerns outside the combination rendered the attempt ineffective, and the maund price rose from Re. 1-9-0 in the previous year to Rs. 2-2-0, the normal price being given as Re. 1-15-0. Stocks of unhusked rice held up in the districts at the close of the year (June 1911) are believed to have been less than in the preceding year, and there has been an extraordinary rise in price since.

The final cotton forecast estimated the outturn of cleaned cotton at 30,000 bales of 400 pounds, against the previous year's estimate of 32,343 bales, that in turn being nine per cent. below the average of the previous five years. All the district estimates fell below the normal, except that of the Lower Chindwin. The harvest price per maund of uncleaned cotton at Myingyan was Rs. 10-5-0, against Rs. 6-12-0 in the previous and Rs. 4-11-0 in a normal year.

The forecast of the groundnut crop relates to six districts in which the crop is large. The final forecast for 1910-11 was 47,500 tons, against 61,000 in the previous year, which in turn was 37 per cent. below the average of the previous five years. The harvest price per maund at Magwe was Rs. 4-1-0, against Rs. 3-9-0 in the previous and Rs. 3-5-0 in a normal year; at Myingyan it was Rs. 5-2-0, against Rs. 4-2-0 in the previous and Rs. 4-1-0 in a normal year.

The prices of the generality of other crops were also higher, sesamum, red millet and white millet sharing in the improvement. Red beans fetched a lower price, and tobacco was at much the same level as in 1909-10.

Horticulture.

Agri-Horticultural Societies.

105. There are two Horticultural Societies in the Province. The Agri-Horticultural Society of Burma ended the year 1910 with 246 members, an increase of seven over the numbers for 1909. The receipt of exceptional sums in that year, combined with an increase in 1910 in the expenditure on the garden at Rangoon, and the disbursement of special items of expenditure, reduced the balance at credit of the Society from Rs. 5,500 to Rs. 1,600 at the close of the year of report. The scheme of improvement to the Society's land has been accepted by the parties concerned, and new deeds of the land were completed during the year. A better supply of water is anticipated in future years. The Society held a Show of Flowers, Vegetables, Economic Products and Poultry in January 1911, just after the close of the year of report. Many of the leading mercantile firms of Rangoon exhibited, in addition to the Forest and Agricultural Departments of Government: the growth of public interest in the Exhibition is shown by the fact that the visitors numbered more than three times as many as had ever before attended the Show.

The Tenasserim Agri-Horticultural Society, after being dormant for four years, was revived in the year of report. The old rules were adopted, with modifications. The Society, which now has fifty-five members, held a Show in January 1911. There were exhibits in almost every class and, apart from flowers and vegetables—the main objects of the exhibition—there were stalls illustrative of the rubber industry and of the handicrafts of mat-weaving, ivory carving and silver working.

Forests.

Administration.

106. The re-organization of the Provincial Forest Service was sanctioned and came into effect from the 1st of March 1911, within the year covered by the Departmental report. The scheme provides a time-scale of pay, and greatly improves the prospects of that branch of the Department. The Forest School was removed from Tharrawaddy to Pyinmana. The Mansi Subdivision of the Upper Chindwin Forest Division was formed into a separate Division. At a conference of the Chief Conservator and Conservators, uniform standing orders were laid down for girdling, demarcation, hammer-marks and the marking of timber, over the whole Province.

Forest Reserves, operations of survey and settlement, and working-plans.

107. The area of new reserves finally notified was 381 square miles, of which three hundred square miles fell within the Minbu Forest Division of the Southern (Forest) Circle. Thirteen square miles, including the area of the Mergui Rubber Plantation, which was sold by Government during the year, were disafforested. The area of reserved forest private rights within which were finally determined by the process of Forest Settlement, was 366 square miles. In the preceding year 2,063

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

square miles had been notified as reserves and 1,313 square miles had been settled. The area awaiting settlement at the close of the year of report was 656 square miles. The cost of settlement was Rs. 24,800, as compared with Rs. 21,800 in the previous year. The total length of boundaries increased from 22,705 to 23,740 miles: the length remaining to be demarcated at the close of the year was 1,018 miles, nearly the whole falling within three Divisions of the Southern Circle. New demarcation was effected along 915 miles of boundary. A survey on the 2-inch scale of 187 square miles of reserves, or proposed reserves, was carried out by the Survey of India Department in the Bhamo and Myitkyina Divisions, but survey still lags far behind reservation, the area of reserves not yet topographically surveyed amounting to no less than 12,388 square miles.

Three working-plan parties were employed during the open season, one each in the Pegu, Northern and Southern Circles. In the last-named Circles the field work was completed for 300 and 242 square miles respectively by a special officer, and the Divisional Forest Officer carried out the field-work required for 179 square miles in the Ruby Mines Division. A plan for an area of 184 square miles in the Myittha Division was sanctioned. The Provincial area under sanctioned working-plans amounted to 7,425 square miles at the close of the year, and plans for 2,415 square miles were under preparation or awaiting sanction. More than sixteen thousand square miles of reserved forest await plans, but a great deal of this enormous area does not at present require regular working-plans, whilst most of the teak-bearing regions included within it are already exploited according to a scientific scheme of girdling. Lack of establishment or labour, or both, made it as in past years impracticable to carry out in their entirety the works of improvement projected in sanctioned working-plans.

Preservation of the forests.

108. In the Pegu Circle the felling of trees less than three feet in girth for fuel for steam-boats was prohibited in the area between the Rangoon-Prome Railway and the Irrawaddy River in the Tharrawaddy District. The prohibition of shifting cultivation was applied to a further area of 86 square miles in the Ruby Mines District, and the felling of the unreserved kinds of trees and their conversion into charcoal and firewood were forbidden in 260 square miles of the Sagaing District. Fire protection was attempted over 7,466 square miles of forest land, of which 278 square miles were, in the event, burnt. The area under protection declined by 261 square miles as compared with the preceding year, protection being abandoned over some areas in the Pegu and Northern Circles. The year was unfavourable to protection in the forests of Lower Burma, where the dry season was protracted; in the Northern Circle early rains led to the opposite result, of a season practically entirely free from fires. The cost of operations over the Province fell from three to $2\frac{3}{4}$ lakhs of rupees. The number of offences against the Forest law increased from 3,494 to 3,831, all the chief categories except unauthorized grazing showing advancing figures. The increase in the number of unauthorized fellings—especially in the Pegu Circle—was large. The Departmental review ascribes the increase to the entertainment of larger establishment rendering detection better. More cases were disposed of by the Courts, and the percentage of conviction rose from eighty to 85. More cases were compounded than in the preceding year.

Improvement of the forests.

109. The expenditure on new roads and buildings was Rs. 91,000 against Rs. 58,000 in the earlier year. Eighty miles of cart-road and 541 miles of bridle-path were constructed, the figures of 1909-10 having been 95 and 464 miles respectively. On new buildings a sum of Rs 1,17,000 was expended, this figure falling slightly below that of the preceding year: a quarter of a lakh was devoted to the provision of houses for subordinates. Repairs to existing buildings cost more than half a lakh. The area of regular teak plantations was not increased. One hundred and twenty-one acres were added to the Mergui Rubber Plantation, which was ultimately disposed of to a Company. More than six hundred acres

of new teak *taungya** plantation were formed. Over half a lakh was devoted to improvement fellings, the area within which these operations were carried out amounting to 85,465 acres. The area was a little less and the cost Rs. 9,000 greater than in 1909-10.

Exploitation of teak.

110. The number of teak trees girdled, 112,523, was practically the same as in 1909-10: 76,901 of the total grew within reserves. The tonnage of teak timber extracted by Government agency—this method of working is of chief importance in the Pegu Circle—declined by some 2,000 to 47,704, but purchasers extracted 262,083 tons, or approximately 28,000 more than in 1909-10, owing to the efforts made by them to get out as much timber as possible during the currency of the old leases, many of which lapsed at the end of 1910. The price of teak ruled generally high, the average realized at the Government auctions at Rangoon being Rs. 83-3-7, or nearly five rupees per ton better than in the preceding year. Nearly the whole of the extraction by purchasers was effected by lessees, and the average royalty realized by the State was Rs. 19-11-1 per ton.

Other kinds of wood.

111. The tonnage of other kinds of reserved wood extracted rose from 71,529 to 78,626: unreserved wood was removed to the extent of 248,000 against 237,000 tons: and fuel extractions rose from 326,000 to 343,000 tons. The extractions of *pyinkado* (*xylia dolabriformis*) amounted to 48,543 tons.

Finance.

112. The financial results are noticed in Chapter V, in the section entitled *Sources of Imperial Revenue other than the Land.*

The Kheddah Department.

113. Field operations—which were conducted in three places in the Ruby Mines District—were successful, and resulted in the taking of 219 elephants. There was, however, no improvement in the health of the animals captured, of which no less than 180 died during the year. A severe outbreak of cholera visited the hunting-party while the last drive was in progress, and sixty-one men died. The result of the hunting operations was a loss of nearly one and a half lakhs of rupees, and since the close of the year the operations of the Department have been closed.

Mines and Quarries.

The Indian Mines Act.

114. No new mines within the scope of the Indian Mines Act were opened in the calendar year 1910, and the same four mines as in 1909 are dealt with in the reports, namely, the Ruby Mines, in the district of that name, the Sagadaung galena mine in the Mandalay District, the Burma Development Syndicate's tin mine at Maliwun in the Mergui District, and the Mount Pima Mining Company's galena mine in the Yamèthin District. The Mount Pima undertaking was in financial difficulties during the year and has gone into liquidation, and mining on a substantial scale is represented by the Ruby Mines only. Malaria was prevalent at the Maliwun mines. Women were employed at the Mount Pima and Sagadaung mines, where the health of all workers and conditions in general were reported to be satisfactory. No children were employed at any of the mines. Two fatal accidents occurred at the Ruby Mines.

New concessions.

115. An appreciation of the extraordinary activity in the search for paying mineral deposits which characterized the year 1910-11 can be gathered from the number of applications made for prospecting or exploring licenses or mining leases. Excluding the number of applications—no doubt comparatively few—which were disposed of in the same quarter within which they were received, the number of applications filed rose from 262 to 1,224. The number disposed of rose from 174 to 821. The pending file contained 796 cases at the end of 1910-11, against

* *Taungya*, cultivation on hill-sides.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

154 at the end of the preceding year. The search for most of the different metals spread. Applications to search for, or work petroleum rose from sixty to 188: gold, from 36 to 59: tin, from 32 to 48: wolfram, from fourteen to 67. Minerals generally, or minerals in general but excluding oil, were mentioned as the object in view in 890 applications. Out of the 1,224 applications received during the year and appearing on the quarterly pending lists, all except 24, which were for the grant of mining leases, and 27, which were for the grant of exploring licenses, were for license to prospect. The special feature of the year was the concentration of activity in the southernmost littoral districts. No less than 738 applications were received in the Tavoy District, the number received within and appearing on the pending list for one quarter alone, the last of 1910, being 281. Activity in this district, though it grew rapidly, was the continuation of a phase of the preceding year: but the fever spread during the year to the Mergui District, where the applications increased from three in the first, and one in the second, to 126 in the third quarter of 1910-11. Most of the applications made in Tavoy and Mergui were to prospect for minerals other than oil. In the central, oil-bearing region the search for petroleum continued. The applications which were filed during 1910-11 and came on to the pending lists numbered fifteen in the Magwe, 53 in the Pakôkku, and nineteen in the Myingyan District, and most of these related to petroleum.

Petroleum.

116. Nevertheless, the yield of petroleum over the Province fell from 230 to 211 million gallons, the output in the Magwe District, where are situated the Yenangyaung wells, falling from 187 to 175: in the Myingyan District, which contains the Singu field, from 37 to 31½: and in the Pakôkku District, which contains the Yenangyat wells, from six to five million gallons. The Minbu District, which yielded nothing in 1909, produced 18,320 gallons in the year of report, and it is stated that new wells have been struck in the Singu field. Little progress was made in testing the new field at Sabe in the Pakôkku District, and the Yenangyat field is, it is stated, becoming exhausted. The same report is made of the Yenangyaung field. Drilling operations increased in this field and a new undertaking, the British Burma Petroleum Company, came into existence, whilst the Aungban Oil Company went into liquidation. The Nath Singh Oil Company have built a refinery in the field, but no oil has yet been refined. Prospecting operations in the Thayetmyo District have not yet proved successful.

Gold.

117. Gold is worked sporadically after native methods in several districts, but the outturn is insignificant. Three districts only, Myitkyina, Katha and Pakôkku, returned figures for 1910, and the provincial total of gold won fell from 8,473* to 5,996 ounces. The Myitkyina production fell from 8,445 to 5,972 ounces; the Burma Gold Dredging Company had a less successful year and no royalty was paid by them. The Shweli Gold Dredging and Mining Syndicate in the Ruby Mines District was inactive.

Rubies.

118. The Ruby Mines Company experienced a bad year, the profits amounting to £1,090 only. The value of the rubies produced was returned at Rs. 8,36,562, against 9½ lakhs in 1909. Sapphires of the value of Rs. 17,000 and spinels worth Rs. 8,500 were also found. The ruby market remained lifeless and the Company's total sales declined from £55,443 to £51,189. Royalties collected from native miners within the ruby-bearing region rose from Rs. 1,41,928 to Rs. 1,47,540. These royalties are collected by the Company but credited to Government, under an arrangement by which the Company is allowed to postpone payment of its arrears of rent due to Government. The arrangement has been extended for a term of three years longer. The Nanyaseik mines in the Myitkyina District remained deserted.

* Corrected figures.

Other minerals.

119. The Taungbalaung copper mines in the Myitkyina District were worked during the year; 290 tons of ore, valued at Rs. 8,693, were produced, and Rs. 791 was paid as royalty to Government. No copper was worked in the preceding year. No other district reported any production of copper. Jade weighing 1,908 cwts. and valued at approximately two lakhs of rupees was produced at the Tawmaw mines in the Myitkyina District, as compared with 2,487 cwts. in 1909. The stratum declines, and winning becomes harder each year. The Pakan and Mamôn mines in the same district were worked, but there were no rich finds. Sixty-three cwts. of amber came into the district from the Hukong valley in unadministered territory, against 31 cwts. in 1909, but the reported value was slightly lower. No tourmaline was worked in the Ruby Mines District. The provincial extraction of galena, from the Toungoo District and the Southern Shan States, was 680 tons, valued at Rs. 22,000, against 2,463 tons, valued at Rs. 8,400, in 1909. The Mount Pima Mining Company ceased to extract at the end of November 1910. The production of tin ore from the Mergui District was 2,175 cwts., valued at more than two lakhs of rupees, against 1,665 cwts., valued at less than 1½ lakhs, in 1909. The Burma Development Syndicate were more active, and exported some 44 tons from their mines at Maliwun. Nine hundred and seventy-five tons of silver-lead ore, valued at Rs. 43,000, and 29,533 tons of lead slag, valued at more than 24½ lakhs of rupees, were produced in the Northern Shan States, against 5,888 tons valued at eleven lakhs in the preceding year, the increase being due to the activity of the Burma Mines Company at Bawdwin. The total production of wolfram ore was 7,890 cwts., valued at 5¾ lakhs of rupees. None was reported in the preceding year. Wolfram is being keenly prospected for in the Tavoy and Mergui Districts; the bulk of the year's output came from the former district, which reported 7,230 cwts. valued at 5½ lakhs. Iron ore to the amount of 18,782 tons, valued at Rs. 6,456, was produced in the Mandalay District, against 7,480 tons valued at Rs. 2,571* in the preceding year. The ore is extracted by the Burma Mines Company.

Quarry stones and clay.

120. The approximate amount, in thousands of tons, and value of the various mineral stones, etc., quarried during the year 1910 were—clay, 490, valued at three lakhs of rupees: sandstone, 98, valued at Rs. 1,13,000: limestone, 233, valued at two and a quarter lakhs: laterite, 251, valued at Rs. 3,11,000: gravel, 101, valued at three-quarters of a lakh: granite, 151, valued at 2¾ lakhs: trap, 14, valued at Rs. 17,000: and one hundred and fifty-three tons of slate valued at Rs. 1,224. These figures, both of amount and value, vary—in some cases enormously—from the figures reported for 1909. This is perhaps due to the introduction of a new form in which to report the figures having led to greater care in scrutinizing them. In the Hanthawaddy District the quarrying of laterite largely increased, in order to meet the demands of the Railway Company, the Rangoon Municipality, and the Public Works Department. In the Thatôn District the quarrying industry also expanded rapidly, an apparent diminution in output being due to incorrect reporting for the previous year. The outturn of granite from the island of Kalagauk in the Amherst District, for use in the Rangoon river-training scheme, rose from 57,000 to 104,000 tons.

Revenue from mines and quarries

121. The receipts from fees, rents and royalties on petroleum, rubies, jade and amber rose for the Province from Rs. 28,71,928 to Rs. 29,26,605, the increase of over half a lakh of rupees bringing the total collection to the highest figure on record. The receipts in the Magwe District declined by nearly a lakh of rupees, to Rs. 20,38,806, whilst there was an increase of more than a lakh from the Myingyan District. In the Ruby Mines District the direct credit to Government of the royalties received from native miners by the Ruby Mines Company accounts for an increase of Rs. 37,802. A small advance in the Myitkyina District is accounted for by the higher price paid for the right to collect royalty on jadestone and amber. The fees, rents and royalties on other minerals than

* Corrected figures.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

those mentioned rose by nearly half a lakh, to Rs. 1,10,042, the highest figure yet recorded. There was an increase of Rs. 45,335 from the Tavoy District, reflecting the activity of the mining industry there. A decline of Rs. 9,844 in the Myitkyina District was due to suspension of the royalty paid by the Burma Gold Dredging Company.

Manufactures.

Principal industries.

122. According to the Census of 1901, now more than a decade old, rice-mills supported over 41,000 people, of whom four-fifths were workers, and saw-mills 8,000, of whom three-fourths were workers. Of the home industries, cotton-weaving and spinning were the most important, supporting nearly a quarter of a million persons: over ninety per cent. of the actual workers were women. Until the figures of the Census of 1911 appear, it cannot be said what modifications the decennium has witnessed in the distribution of industrial activity. In Rangoon Town, where are the majority of factories, *vide* the next paragraph, the chief industries are the milling of rice, the cutting of timber, refining earth oil, bone-crushing, the manufacture of cigarettes, and foundry work in iron and brass. The Hanthawaddy District contains the chief centres of the oil-refining industry, at and in the neighbourhood of Syriam. Refining on a very small scale continued to be carried on in the Shwedaung Township of the Prome District during the year. The reports, which do not, however, pretend to be exhaustive, mention the mat-weaving industry in the Ma-ubin District—where are produced *thinbyu* mats of fine texture and appearance—and in the Hanthawaddy and Shwebo Districts, silk-weaving and the pottery industry in the Shwebo and Mandalay Districts, the making of shoes and umbrellas in the latter, and of carts and cart-wheels in the former, and the *ngapi* (preserved fish) and cigar industries, the former being a main industry at Yandoon and the latter at Danubyu and Yandoon Towns in the Ma-ubin District.

Factories.

123. The factories falling within the scope of the Indian Factories Act are found in fourteen districts, all of Lower Burma. The number increased from 289 in 1909 to 301 in 1910: one steam dockyard, one soap factory, and one tramway concern with steam power fell out of the list, whilst three iron and brass works, one lac factory, one petroleum refinery, one rice-mill, one rope factory, one saw-mill, one sulphuric acid factory, one dockyard (without steam power), two oil-mills, one printing press, one tobacco factory and one tramway undertaking (without steam power) were added to it, the sulphuric acid and tobacco factories and the lac refinery being ventures of a new kind. The reports mention a project to start a factory for the reduction of plantain fibre in the Henzada District. Out of the total number of factories in Lower Burma, 131 are in Rangoon Town, 36 in the Amherst and 26 in the Hanthawaddy Districts. The most numerous classes are rice-mills (165), saw-mills (83) and iron and brass works (twelve). Rangoon Town increased its number of factories by seven, Hanthawaddy by four, and Tharrawaddy by four during the year, whilst three factories in the Toungoo District closed down. Twenty-one of the 301 factories did not work during the year. The average daily number of operatives rose from 43,098 to 45,264, the number of females—chiefly found in the Rangoon, Prome and Bassein factories—rising from 894 to 999, whilst the children employed fell from 593 to 374. Boys are employed in the Rangoon and Hanthawaddy, and girl-workers in the Thayetmyo factories. The sanitary arrangements remained much as in previous years; in the mills themselves they are generally fairly satisfactory, but the coolie lines in the large towns are frequently insanitary. A model form of coolie barracks for Rangoon has not yet been devised, owing to the difficulty of designing a building on sanitary lines and not at an undue cost. The general health of operatives was good, except in Bassein, where there were outbreaks of plague and cholera, the latter due to the coolies drinking river water. A scheme to supply the town with water has been prepared. The wages of unskilled labour in factories remained much the same, coolies and porters receiving in rice-mills in Rangoon Rs. 15, in foundries

Rs. 14, and in saw-mills Rs. 12. In some places it is stated that the demand from the factories makes it difficult for other employers to engage unskilled labour. The protection of machinery is reported to be generally adequate. The question of saw-guards was considered, but it was found to be impracticable to prescribe any standard pattern. Accidents decreased from 362 to 335, but fatal and serious accidents rose from 138 to 146. With the exception of accidents from saws in Rangoon, the casualties were nearly all due to carelessness. There were two prosecutions during the year; in both, fines were imposed.

Trade.

Maritime trade: total values and revenue.

124. The total value of the sea-borne imports and exports of Burma, both foreign and coasting, for the year 1910-11 advanced by 285 lakhs, or 5·18 per cent., to 5,794 lakhs of rupees. As compared with an earlier year, excluding from both years the transactions in Government treasure, the aggregate of 5,594 lakhs was 91 lakhs below the figure of the record year, 1907-08. The Rangoon Currency Office now holds sufficient reserves to finance the rice crop of Burma, and Government currency notes are also circulating more freely. The returns for 1910-11 reflect this in the amount of treasure moved, which was much below the quinquennial average up to 1907-08.

The total value of the foreign trade, excluding a trifling sum on account of Government transactions, was 3,199 lakhs, or 488 lakhs more than in 1909-10, a percentage increase of no less than eighteen. There was a slight decline, from 1,102 to 1,093 lakhs, in foreign imports, owing to the heavy speculative transactions of 1908-09, but a large increase in exports, which advanced from 1,607 to 2,105 lakhs: this was mainly due to rice being diverted from the coasting to the foreign trade. Imports of piece-goods, apparel, and oils improved, but machinery, metals and their manufactures, and tobacco fell off. Old stocks in the Province have, it is stated, now been cleared and the import trade begins to show signs of improvement. Of the staple articles of export, raw cotton alone declined, and increases were recorded under wood, raw hides, lead, cutch, paraffin wax and mineral oil.

The total value of the coasting trade, excluding Government transactions, which are largely exports and imports of treasure, fell from 2,654 to 2,347 lakhs: imports improved generally, and the diminution was in exports, which fell by 365 to 1,346 lakhs. The reason was the diversion of the rice trade mentioned above.

The departmental report refers to the existence during the year of trade depression resulting from unsuccessful speculation, but anticipates no enduring or widespread effects. Remunerative prices were obtained for the rice crop, which is always the ruling factor in the trade of Burma. Rangoon, the chief port of the Province, took 83 per cent. of the total private trade, against 80½ in 1909-10: 86 per cent. of the foreign, and 78 of the coasting, trade went to the chief port. The relatively small remainder was shared between eight subordinate ports, of which Moulmein, Akyab and Bassein alone enjoyed percentages exceeding unity, Tavoy, Mergui, Kyaukpyu, Victoria Point and Sandoway, in that order, contributing fractional figures only. The balance of the value of exports over imports, excluding the figures of Government transactions, rose from 1,274 to 1,357 lakhs: in Rangoon, it rose from 828 to 980 lakhs.

The net amount of customs duty, inclusive of the duty on imported salt, rose by twenty per cent., from 150 to 180 lakhs of rupees. The enhanced taxation under Act VIII of 1910 (amending the Indian Tariff Act) was responsible for increases of 2½ lakhs from imports of liquor, 5¼ lakhs from tobacco, and half a lakh from petroleum. Though there was a decline in the value of the foreign import trade, duty levied on general merchandise advanced by a lakh, in consequence of smaller importations of duty-free articles. The import duty on salt remained stationary at 17½ lakhs. Receipts from export duty rose by 2¼ lakhs, owing to the diversion of the rice trade to foreign ports. The collections in Rangoon formed 96 per cent. of the total revenue, as compared with 95 per cent. in the previous year. The total receipts on account of subordinate ports aggregated 26½ lakhs only.

CHAP. IV. PRODUCTION AND DISTRIBUTION.

Rangoon trade: total figures.

125. The aggregate foreign and coasting sea-borne trade of Rangoon excluding Government transactions, rose from 4,322 to 4,586 lakhs. Foreign imports fell from 1,080 to 1,066 lakhs, whilst imports coastwise rose from 665 to 736 lakhs: foreign exports rose largely, from 1,266 to 1,693 lakhs whilst exports coastwise fell largely, from 1,368 to 1,090 lakhs. The foreign trade represented sixty per cent. of the whole value, as against 53 per cent. in the previous year. Out of the seven groups into which imports are divided, the year showed a decline under five and an increase under two only, namely, those comprising mineral oils and textile fabrics. Increases were recorded under all the groups of exports, the largest accruing in the category of articles of food and drink and reflecting the heavier shipments of rice.

Rangoon trade: foreign imports.

126. Manufactures of cotton, metals, provisions, silk and its manufactures, sugar, hardware and cutlery, machinery and mill work, apparel, liquors and manufactures of wool were, in that order, the chief imports into Rangoon from foreign countries. Of the remaining kinds of articles, parts of ships imported, which had in previous years contributed to a high absolute and average figure, fell by 28¾ to four lakhs: the figures of the two preceding years had been swollen by large imports of oil-carrying boats, for which there has not yet arisen sufficient employment. Drugs, medicines, and narcotics declined from 25 to eleven lakhs. Imported matches, which are mainly of Japanese origin, also decreased: a local match factory with up-to-date machinery has been established in Rangoon and is prospering. Chemicals advanced by nearly one lakh, sulphuric acid being the principal item, but a factory for the manufacture of this and other chemicals was established during the year and a decline in imports may be expected. Oils increased from ten to sixteen lakhs, and carriages and carts by three lakhs, the latter heading reflecting the growing use of motor cars and motor cycles.

The aggregate value of the foreign and coasting imports of cotton manufactures into Rangoon increased by sixty lakhs, or seventeen per cent., partly as a result of the higher prices ruling at home in consequence of reports of a short American crop, and partly on a revival of demand following a year of depression. It is believed that the large stocks carried over from 1908-09 have now been absorbed. The enhancement was shared both by the foreign and coasting trade. In the foreign trade, imports of twist and yarn from the United Kingdom rose by four per cent. in weight and fifteen per cent. in value, whilst imports from other countries declined. Piece-goods imported rose in value by seventeen per cent.; the United Kingdom contributed 81 per cent. of the total quantity, an increase on the figures of 1909-10; Holland, with fifteen per cent. followed, as in the previous year. Twist and yarn, imported coastwise, rose by ten per cent. in weight and by eleven lakhs in value, and piece-goods to the value of 57 lakhs, or twelve lakhs more than in 1909-10, came in coastwise, Bombay supplying almost one-half of the total quantity, and Madras and Bengal sharing the remainder.

Iron and steel comprise the chief imports of metal, of which the total imports fell by fourteen lakhs. Wrought and unwrought iron declined by eighteen lakhs, the diminution being greatest in pipes and tubes, sheets and plates. It is ascribed in part to the oil refineries sending smaller orders for tinned iron sheets for the manufacture of kerosene oil cans. Steel on the other hand rose by six lakhs, and this is ascribed to activity in oil-boring operations, which require steel pipes of different sorts. According to the countries of shipment, the import of metals from the United Kingdom has fallen from 97 to 67 lakhs in the last three years, whilst the United States have improved their supplies from eighteen to 26 lakhs.

Provisions imported declined by nine lakhs, the chief items being dry and wet salted fish, of which ample local supplies were available. Silk declined by 6½ lakhs, imports of raw silk from the Chinese Treaty Ports falling by five lakhs, in consequence of heavy stocks held and, in part, of the high prices ruling in China. Silk piece-goods imported from Japan also showed a marked decline. Sugar declined by five lakhs, or eleven per cent., both in quantity and value: heavy stocks held are stated to be responsible for the fall. Java increased her share of

the supply from 87 to 89 per cent., Hongkong being the only other important contributor. Hardware and cutlery improved by five lakhs, the enhancement accruing under most of the subordinate headings. The figure for 1910-11 was little below that of the record year, 1908-09. The United Kingdom retains the chief share in this market, though her absolute contribution was less, and her percentage markedly less, than in 1909-10. Machinery and millwork (excluding Railway machinery) diminished by twelve lakhs, chiefly in consequence of the figures of 1909-10 reflecting large orders for the Rangoon Port Trust wharves and the Rangoon Municipality. The United States increased their percentage of the trade, at the expense of the United Kingdom. Imports of apparel, excluding hosiery, rose by 10½ lakhs or 36 per cent., the enhancement being ascribed to depletion of stocks and accruing under most of the subordinate headings. The United Kingdom commands this market, but some of the headings disclose a falling percentage.

Imports of liquor fell in value by a lakh of rupees, the decline being common to beer, all spirits intended for drinking purposes, and all the sorts of wine except champagne. In quantity, the total decline in import of spirits amounted to sixteen per cent., brandy receding by eighteen, gin by 37, and rum by fifty per cent., but the increased prices demanded by distillers reduced the decline in value to four per cent. only. The decline was due to an increase in the rate of duty, from Rs. 7 to Rs. 9-6-0 per proof gallon. There was a heavy fall in the clearances of spirits for consumption.

Imports of wool rose by 2½ lakhs, a decrease of three lakhs under carpets and rugs being met by an increase of 5½ lakhs under woollen piece-goods. Imports of dutiable silver into Rangoon are usually negligible, and the imposition of the duty of four annas per ounce has had no effect on the revenue.

Rangoon trade: foreign exports.

127. Rice, husked and unhusked, mineral oils, wood and its manufactures, rice-bran, raw hides and skins, grain and pulse (other than rice), pig lead, raw cotton, and cutch were, in that order, the chief exports from Rangoon to foreign countries. The outstanding features in the rice trade of 1910-11 were a weaker demand from India, consequent on good crops there: heavier shipments to foreign ports: and higher prices, both for unhusked rice (paddy) and husked rice. Foreign exports rose by 24, whilst shipments coastwise fell by 46 per cent. As compared with 1909-10, the foreign export of rice of both kinds rose in value by no less than 420 lakhs, and the total exports (foreign and coasting) were in weight only some 345,000 hundredweights below the record year 1907-08. More than three million hundredweights were shipped to Bombay, it is believed for reshipment largely to East Africa. Java, the Straits Settlements and Japan participated in the increased exports to foreign countries. The demand from the Straits Settlements appears to be increasing, and the returns show advancing exports to Egypt, but probably at least one-half of the shipments to that country were ultimately consigned to European countries. Exports of rice bran rose in value by 1½ lakhs, and the returns disclose a steady increase in the production of this commodity.

Mineral oils were exported to foreign countries to the value of 29 lakhs more than in 1909-10; this figure represents a decline of two lakhs in the exports of kerosene, and increases of fourteen lakhs in the exports of paraffin wax and of seventeen lakhs in the value of other sorts of oil, *e.g.*, benzine. Of the varieties classified as 'other sorts of oil,' the bulk of the exports diminished, but values rose largely. The opposite tendency appears in the figures of export coastwise: kerosene to the value of 65 lakhs more than in 1909-10 was shipped to Indian ports, whilst the improvement in exports of paraffin wax and other sorts of oil coastwise together amounted to five lakhs only. The figures reflect the continued activity of the Burma refineries. The reduction in the foreign exports of kerosene suggests that supplies of Burma oil were not sufficient for both the Indian and Far Eastern markets.

Wood and manufactures of wood were exported to foreign countries to the value of 25 lakhs more than in 1909-10, and the coasting trade added six lakhs to this figure. The year was one of large exports of teak, increases being shown against all important markets. The bulk of the foreign shipments went to

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

the United Kingdom, and railway construction in South Africa and Victoria helped to enhance the total. The coasting trade, although it grew less than the foreign trade, still accounts for more than twice the bulk of the foreign exports.

Exports of hides and skins to foreign countries rose by eight lakhs, owing to better prices offered by the European and Levant markets, Italy taking the largest supplies. Coastwise shipments of raw hides, mainly to Bombay, advanced in value from three to six lakhs. Under the heading *Grain and pulse*, pulse advanced by 51 per cent. in quantity and 43 per cent. in value, most of the crop going to the United Kingdom. Pig lead again advanced largely, the exports rising in value by 14½ lakhs: practically all shipments went to the United Kingdom. Exports of raw cotton fell by 21 lakhs, the figure being the smallest on record since 1904-05. The decline from the figure of 1909-10 amounted to 57 per cent., and is attributed to a poor crop and depleted stocks. The figures of export coastwise advanced by 7½, to sixteen lakhs, practically the whole being appropriated by Bengal. Exports of cotton seed to foreign countries fell by five lakhs, and there was no compensating improvement in the coastwise trade. The trade in cutch revived, exports to foreign countries improving in value by ten, and coastwise exports by two lakhs. The United Kingdom absorbed 61 per cent. of the foreign exports, Holland and France taking most of the remainder. The value of groundnuts exported to foreign countries rose slightly, but coastwise exports fell by seven lakhs, owing to sesamum and other crops taking the place of groundnut. Exports of lac to foreign countries rose by one lakh, and exports coastwise by four lakhs. The increase was due to an abnormal rise in the price of shellac in London inducing local dealers to buy up all available supplies for shipment to the refineries at Calcutta.

Rangoon trade: British share.

128. Of the imports from foreign countries to Rangoon, the share given by the United Kingdom declined from 57½ to 55 per cent., and the British Empire contributed 65½ per cent. against 68½ per cent. in 1909-10. Of the exports to foreign countries, the United Kingdom took 21 against 23½ per cent., and the British Empire 46, against 48 per cent. in the earlier year.

Rangoon: coasting trade.

129. After two abnormal years, in which large supplies of rice were drawn from Burma to India, the total value of the coasting export and import trade of Rangoon fell in 1910-11 to 1,827 lakhs, a decline of ten per cent. from the figure of the preceding year. The value was nevertheless more than 23 per cent. in excess of the average of the quinquennium ending with 1907-08. There was an advance in imports, the total value, exclusive of silver, improving by 77 lakhs. Exports fell off by 278 lakhs, a decline of 373 lakhs under rice and an improvement of 71 lakhs under mineral oils contributing to the net result. Manufactures of jute and cotton, cotton twist and yarn, oils, and seeds were the chief imports that improved: of the exports, mineral oils, wood and its manufactures, raw cotton and candles showed increased totals.

Subordinate ports.

130. The total value of foreign imports rose by four, to 25 lakhs. There was an improvement in the foreign import trade of Moulmein, which rose by three, to sixteen lakhs, and the Tavoy, Mergui and Victoria Point figures, though still inconsiderable, expanded with the activity of the mining and planting industries on the Tenasserim Coast. Bassein had no import trade. Foreign exports rose, over all subordinate ports, by twelve, to 412 lakhs: Akyab improved by 31, whilst Bassein declined by 21 lakhs; the bulk of the trade, however, fell to Bassein with 191 lakhs. Wolfram, tin and rubber are among the exports from Mergui and Tavoy which may be expected to rise in future years.

The coasting trade of the subordinate ports, in the aggregate of exports and imports of merchandise, declined from 566 to 489 lakhs, owing mainly to diminished exports of rice to India.

Transfrontier trade: general remarks.

131. The form of the departmental report makes it impracticable in some cases to compare the figures of 1910-11 with those of 1909-10. In the triennial period ending with the former year the Trade Registration Department was reorganized and twelve new registering offices were opened, bringing the total

to 41. The recommendations of the Committee on Indian Trade Statistics, so far as they dealt with transfrontier trade, have been fully carried out. The system of collecting and tabulating trade statistics remained unchanged, but separate figures were compiled for several articles the volume of trade in which showed a large increase. The state of the borders was peaceful during the year of report, and the value of imports and exports together rose from 567 lakhs of rupees in 1909-10 to 604 lakhs, an increase of approximately 6½ per cent. The growth accrued both in imports, which rose from 299 to 323, and in exports, which rose from 268 to 281 lakhs, and all the adjacent countries shared in the increase except Northern Siam, where a poll-tax on immigrants has retarded trade, and Karenni. The depression which set in in 1908-09 has passed away, and the figures of 1910-11 under either head are the highest yet recorded. Imports grew in the triennial period to a much greater degree than exports; imports of lead from the Northern Shan States account for half of the increase: the other half is distributed over various heads, ponies, elephants, cigar wrappers, sesamum, pickled tea, fruit, jadestone, black tea, and silver all showing improved figures, whilst there are large falls in stick lac and timber. Exports increased in the triennium by eleven per cent., European cotton piece-goods being chiefly responsible. Other articles of which the export rose were wet salt fish, petroleum, other kinds of oil, apparel, brass, liquor and various kinds of provisions. The export of silk piece-goods, raw cotton—the trade in which has been diverted from Bhamo to Rangoon—woollen goods and silver declined in value.

Trade with Western China.

132. The trade with Western China rose by fourteen lakhs in 1910-11, as compared with the preceding year, both imports (38½ lakhs) and exports (51½ lakhs) sharing in the improvement, and the figures of total trade—ninety lakhs—are now better than those of 1908-09. The triennium was a period of transition in this region: the cultivation of the poppy was restricted and the purchasing power of the people temporarily curtailed whilst a substitute for the opium crop was being found. The trade revival in 1910-11 indicates that the people have adjusted themselves to the new conditions. The total increase of trade over the figures of the preceding year amounted to 18½ per cent., imports rising by 25½ per cent., chiefly under raw silk and silver, and exports by 13½ per cent., chiefly in Indian twist and yarn and jadestone. The unsatisfactory nature of the trade route from Nampaung to Têngyüeh receives comment in the reports. The value of the foreign merchandise which passed through the bonded warehouse at Bhamo *en route* for Têngyüeh amounted to 5¼ lakhs, the increase of one lakh being chiefly due to an expansion in cotton piece-goods.

Northern Shan States.

133. As compared with the figures of 1909-10, the total trade of 1910-11 rose by eight lakhs, or four per cent., to 209 lakhs, a diminution of one lakh in exports being met by a rise of nine in imports. The check in exports (77½ lakhs) is ascribed in part to the conditions prevailing in Yünnan, which is the ultimate purchaser of much of the merchandise recorded as being exported to the Northern Shan States, and in part to bad harvests. It was shared by most articles except European piece-goods, which rose by two lakhs. Of the imports, (131½ lakhs) lead, from the Bawdwin mines, rose by eight lakhs, and there were increases under black tea and teak, whilst imports of husked rice and pickled tea declined in value.

Southern Shan States.

134. The total trade rose from 165 to 185 lakhs and was the largest on record. Imports advanced from 72 to 84 lakhs, an increase of sixteen per cent. over the figures of 1909-10, whilst exports rose by eight lakhs, or nine per cent., to 101½ lakhs. Cattle, elephants, cigar wrappers and silver account for the growth in imports, and more than counterbalanced a fall of three lakhs in teak. Among exports, piece-goods advanced by 6½ and silver by six lakhs, and the only notable decline was in Indian twist and yarns. The construction of a railway to the Southern Shan States will no doubt largely modify the figures of future years.

Northern Siam.

135. The total trade of the year (64 lakhs) declined by 6½ lakhs from the figure of 1909-10: there was a fall of six lakhs, or fifteen per cent., in imports,

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

(33 lakhs) and of half a lakh in exports (31 lakhs). In imports the principal losses were in elephants and teak, whilst the decline affected exports in general, with the exception of silver. The value of teak is stated to have fallen in the triennial period; the extension of the Siamese railway system and the growth of river traffic with Bangkok may also have helped to depress the trade with Burma. The Raheng trade, though a part of the trade with Northern Siam, was prosperous during the year, both exports and imports showing improvement.

Southern Siam.

136. The total trade rose by 2½ lakhs to nineteen lakhs, imports advancing by two and exports by half a lakh. Silk piece-goods imported advanced by four lakhs, owing, it is stated, to the popularity in Burma of the silk called *polein*. The growth of the total trade during the triennial period has been inconsiderable, and it seems probable that extension of the Siamese railways is affecting the old trade routes.

Karenni.

137. The trade of the year (38 lakhs) was practically stationary, both in exports and imports. The teak imported declined both in quantity and value. There was a revival in the export of general merchandise, whilst exports of silver remained stationary.

Public Works.

Administrative and general.

138. A new Embankment Division, with headquarters at Henzada, was formed during the year, to admit of the Irrawaddy River being systematically studied, and for the purpose of investigating numerous reclamation and navigation schemes. A conference of Chief and Superintending Engineers was held at Maymyo in October 1910. The arrangements which had been in progress for some time for transferring to the Public Works Department all District and District Cess Fund works requiring technical skill were completed in January 1911. Such members of the establishments of the Funds as were pensionable and were well reported on were brought on to the strength of the Department as supernumeraries. The extra work entailed will probably necessitate a redistribution of Circles and Divisions, as the annual expenditure on the two classes of Funds will amount to over twenty lakhs of rupees

(*i*) *Roads and Buildings.*

Finance.

139. The expenditure on Public Works (excluding Irrigation, *see* paragraph 154 *et seq.* below), by the Department during the year 1910-11 exceeded one hundred lakhs of rupees, the increase over the figure of the preceding year being less than a lakh, and the decrease over the figure of 1908-09 as much as fifteen lakhs. Military Works embraced six lakhs only of the total, Imperial Civil Works 2½, Provincial Civil Works 67¾, Excluded Local Fund Civil Works 10½, and Contribution Civil Works 13¾ lakhs. Though the bulk of the expenditure of the Department went to civil works, the Province is still badly equipped both in buildings and roads, and the paucity of the latter gave rise during the year to comment in the Press, where the mercantile interests concerned in developing the rubber and mining industries again published their grievances. Military works are briefly discussed elsewhere in this Report, *see* paragraph 81. Of the total outlay of 67¾ lakhs on Provincial Civil Works, 18½ lakhs only, *i.e.*, the small ratio of 27 per cent., were spent on original works, and of this the inadequate sum of 4½ lakhs went to new communications, against 12¼ lakhs spent on Civil buildings. All the rest of the outlay on Provincial Civil Works, except 1¾ lakhs spent on original miscellaneous public improvements, was claimed by repairs. In 1909-10, out of a total Provincial Civil Works grant of 67 lakhs, 19¾ lakhs went to original works, 6½ lakhs of this amount being spent on new roads, 11½ on new buildings and 1¾ on miscellaneous public improvements. As in that year, it was not found possible in 1910-11 to spend on new metalled roads any portion of the outlay on new communications, the grant

for which purpose has decreased from 9¼ lakhs in 1908-09 to 6½ in 1909-10 and 4½ in the year of report. The amount spent on Excluded Local Fund Civil Works in 1910-11 was 10½ lakhs, against 8¼ lakhs in 1909-10. Here a higher proportion of the total outlay was available for new roads, the figure exceeding three lakhs, whilst less than a lakh went to new buildings, and only 3½ lakhs to repairs of every description. Contribution Civil Works dropped from sixteen lakhs in 1909-10 to 13¾ lakhs in 1910-11; 11¼ lakhs went to new works, 2¾ lakhs of this sum being spent on new roads, but the bulk, namely 7¾ lakhs, going to miscellaneous public improvements. In this section the outlay of the year on repairs was of trifling amount.

Length of roads.

140. Of roads outside Municipal boundaries the returns show at the close of 1910-11—of metalled road, 1,784 miles maintained by the Public Works Department and 155 miles maintained by local authorities, as compared with 1,736 and 167 miles respectively in 1909-10: of unmetalled road, 6,781 miles maintained by the Department and 3,045 miles maintained by local authorities, as compared with 5,997 and 3,275 miles in the preceding year. The absolute figures of the length of metalled road and the figures of increase are, however, fallacious. Good stone suitable for road making is in most parts of the Province scarce, and the designation of metal is applied to descriptions of road surface, for instance, sandstone, laterite, and burnt clay, which are much inferior to the road metal employed in European countries. Away from the large towns, the length of durable metalled road is very small.

Important works.

141. The buildings of the new General Hospital at Rangoon were completed, with one or two exceptions, and the finished edifice forms one of the finest hospitals in the East. The hospital was in occupation during the year, except for the paying patients' block. The approximate cost was 40¾ lakhs of rupees. The Chief Court building at Rangoon, erected at a cost of 24½ lakhs, was completed. The rebuilding of the central block of the Currency Office buildings at Rangoon was practically completed, and the building was in occupation. The foundations of the new Government Press at Rangoon were laid. Part of the project for a Forest School at Pyinmana has been indefinitely postponed for want of funds: of the portion sanctioned, the whole has been completed except the hospital. Seven and a half lakhs were spent in reclaiming low-lying lands in Rangoon and in equipping the reclaimed area with roads, sewers, drains and a water-supply. Work is, however, likely to progress more slowly in future years, as the borrowing capacity of the Town Lands Reclamation Fund is exhausted, and the floating of further loans must await an increase in the rental and rateable values of the land already reclaimed and equipped. Numerous sanitary projects were investigated. The construction of the Bassein Water-works continued, and systems of water-supply were commenced at Thayetmyo, Minbu and Kyaiklat. An extension to the Akyab distribution system was sanctioned. Approved schemes for supplying the towns of Pyinmana and Yamèthin with drinking water are in abeyance for lack of funds. Projects for the supply of drinking water to Mandalay and Pegu, and for improving the drainage and conservancy of Mandalay, Moulmein, Mergui, Toungoo, Akyab and other smaller towns are under investigation. The suction dredger *Frederic Fryer* was employed during the latter part of the year in raising the level of the water-logged town of Pyapôn. The work, which was started as an experiment, proved successful. The dredger excavates sand from the river bed and discharges it ashore, the material being distributed by means of a shore pipe. The general level at Pyapôn, which was originally below high spring-tide level, has been raised on the average two and a half feet above that level, and it will now be possible to drain the town effectively. The results obtained at Pyapôn appear to justify the belief that a remedy has been found for the insanitary condition of many water-logged towns in the Delta and that the suction dredger may inaugurate an era of health in them. A comprehensive scheme of reclamation work in the Delta districts by means of suction-dredging is under preparation. The sanitary work of the year included

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

also the sinking of numerous tube-wells, improvements to markets, and minor drainage works throughout the Province. In the Northern Shan States the Chiefs provided considerable sums of money for the construction of roads.

The lack of funds has been noticed above: among many important projects which had to be held in abeyance on that account may be mentioned the housing of the Civil Police throughout the Province, of importance because it is believed that the inferior accommodation which alone is available at present seriously retards recruiting: the separation of habitual from casual prisoners in the jails: the provision of increased Court-house accommodation in Lower Burma: and the provision of Hospital buildings generally.

Details: Imperial Civil works.

142. A sum of nearly Rs. 6,500 was expended on the collection of materials for a General Post Office at Mandalay: Rs. 11,000 were spent on Telegraph works, including special repairs to the Wireless Telegraph Office at Diamond Island: and the Currency Office at Rangoon absorbed three quarters of a lakh.

Provincial: Civil buildings.

143. Less than half a lakh was spent during the year on buildings for the Police Department, the chief item (Rs. 18,000) being a non-defensible Police Station at Thatôn. Five and a half lakhs were spent on Medical buildings, nearly the whole being taken by the General Hospital at Rangoon. Improvements to the Civil Hospital at Meiktila cost Rs. 11,000. Nearly three-quarters of a lakh was spent on the new Forest School at Pyinmana; nearly half a lakh on completing the Agricultural College and Farm at Mandalay: and various improvements to Educational buildings absorbed Rs. 22,000. Almost the whole of the outlay assignable to Law and Justice was claimed by the Chief Court building in Rangoon, on which more than a lakh was expended. Jails received less than a quarter of a lakh for new works, the chief item being the expenditure of Rs. 11,000 in providing for the separation of habitual from casual prisoners in the Mandalay Jail. The reinforced concrete floors and grillage foundations, and the erection of stanchions up to the level of the first floor of the new Press buildings at Rangoon were completed, at an outlay of nearly a lakh of rupees.

Provincial: communications.

144. Maintenance of roads during the year cost 22 lakhs. A start was made towards the replacement of old timber bridges by structures of more permanent material, and experimental borings were made in certain areas of the Thatôn quarries. Among the more important works of repair to metalled roads were—the widening and metalling of the Nyaunghla-Twingôn road, which serves the Yenangyaung oil-fields and carries a large traffic: the fencing of dangerous parts of the Ruby Mines road: and the renewal of bridges on the Toungoo-Thandaung road. Improvements to unmetalled roads were much restricted by want of funds. In the Southern Shan States the trans-Salween mule track to Kēngtūng was continued, the construction of masonry bridges being the principal work; in the Mergui District, the road from Victoria Point to Maliwun was finished and the second section of the Tavoy-Mergui road nearly completed: in the Sandoway District, most of the smaller bridges on the Kyeintali-Gwa road were finished, but several large bridges remain to be constructed.

Provincial: miscellaneous public improvements.

145. Raising the road across an arm of the Meiktila Lake absorbed Rs. 12,000, and the laying out of Loi-mwe town in the Southern Shan States, at a cost of more than half a lakh of rupees, approached completion. The reclamation of a quarter of Mergui town was effected, and Rs. 16,500, out of a sanctioned estimate of three-quarters of a lakh, were spent in protecting the foreshore at Kindat, the headquarters station of the Upper Chindwin District. In the Yamèthin District, road-side drains were constructed at Pyawbwè at a cost of approximately Rs. 9,000; some of the market buildings at Pyinmana were rendered rat-proof, as a precaution against plague: and an infiltration gallery was constructed in the same town, at a cost of Rs. 8,800. Other sanitary works of the year have been mentioned in paragraph 141.

Excluded Local Funds: (*a*) Buildings. (*b*) Communications and miscellaneous public improvements.

146. A hospital was constructed at Kyauktaga in the Pegu District at a cost of a quarter of a lakh: the hospitals at Myohaung and Rathedaung in the Akyab District were completed, and the hospital at Ramree in the Kyaukpyu District almost completed. A grant of Rs. 40,000 was made towards the Syriam hospital, now nearly finished.

147. A sum of Rs. 10,000 was spent on the construction of the Paya-gyi-Bawnatgyi metalled road in the Pegu District, and progress was made on other roads in Lower Burma districts: steel truss or girder bridges were completed, or approached completion, at different places in the Thatôn and Akyab Districts; and a reinforced concrete bridge was built at Dabein village.

Contribution works.

148. Work was carried out on several Municipal Hospitals during the year. Alterations to the Hospital buildings at Sandoway were made at a cost of Rs. 17,000: an out-patients' dispensary was built at Henzada at a cost of Rs. 8,200: and a sum of Rs. 37,300 was spent on the construction of the Hospital at Syriam already mentioned. A Hospital and Dispensary at Allanmyo were completed at a cost of Rs. 16,000. The Möng Mit State contributed Rs. 18,000 towards the construction of the Möng Mit-Thitkwèbin road. The grants made by the Chiefs in the Northern Shan States for road building have been mentioned above.

(*ii*) *Railways and Tramways.*

Railways—Construction and surveys.

149. The railway system of the Province continued to be managed by the Burma Railways Company. The length of open line in 1910-11 stood at 1,340 miles on the main line, and 187 miles on the Pegu-Moulmein and Henzada-Kyangin open extensions together, or 1,527 miles in all. By March 1911, the location of the Southern Shan States Railway had been completed as far as Yawnghwe, which is to be the terminus of the Railway as at present arranged—105 miles from Thazi—and the railway was under construction during the year. A detailed survey of that portion of the proposed Pyinmana-Magwe line which lies between Pyinmana and Minbyin was completed and the line finally located. The survey of the projected line from Ta Hapalai on the Mandalay-Lashio Railway to Nam Pai, on the private line of the Burma Mines Company, was finished. The survey of the proposed Nyaunglebin-Madauk branch line has been completed, and reports and estimates are under preparation. The practicability of constructing a railway from Moulmein to Ye again received consideration. A Committee was convened to consider the most suitable type of bridge over the Pazundaung Creek on the Malagon-Dawbong projected line, and reported in favour of a low-level lifting bridge. Correspondence regarding the cost of such a bridge ensued. Reconnaissance and detailed surveys of that portion of the proposed Alôn-Ye-u line which lies between Alôn in the Lower Chindwin and Saingbyin in the Shwebo Districts were completed. The scheme of a light railway along the Irrawaddy Embankment from Henzada to Pantanaw, as an alternative to a loop line east of the Daga river, has been abandoned for the present, and no further survey on the Prome-Chittagong line was carried out.

Interruptions and accidents.

150. There were serious breaches caused by floods at four places on the Mu Valley line—Shwebo, Myingatha, Kinu, and Madaunghla. The immediate cause of the breach near Shwebo was the bursting of the embankment of the Mahananda reservoir on the 30th May 1910. The line south of the railway station remained closed till the 8th June, when transhipment was commenced, and trains ran through on the following day, but on the 10th further heavy rain again breached the line and stopped all through traffic, except the mails, until the 13th June. The interruption north of Shwebo, at Myingatha, was equally serious; all traffic except the mail bags was stopped from the 31st May to the 7th June, and between the 10th and 13th June. At Kinu, traffic, except the mails, was stopped for four days. The Madaunghla breaches extended over a length of nearly two miles and,

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

though they were repaired on the 8th June, the flood of the 10th re-opened them, and through traffic of all descriptions from Sagaing to Myitkyina was not resumed until the 18th June. Detriment to the permanent way through heavy rain caused the capsizement of an engine and five wagons near Thazi on the 3rd September. On the 11th and 12th September there were very serious breaches on the main line between Shanywa and Ku-me Road stations and on the Thazi-Myingyan branch, following on the breaching of the embankment of the Nyaungyan-Minhla reservoir near Meiktila. No passengers could be booked through on the main line from the 11th to the 30th September, and through running was not resumed until the 10th October. On part of the Thazi-Myingyan branch through communication was closed between the 11th September and the 4th October. There were five derailments during the year, and four attempts to wreck trains. None of the accidents to trains was attended with loss of life or grave injury, but there was a serious trolly accident resulting in the death of three persons.

Traffic and Finance.

151. The number of passengers carried on the main line and the Pegu-Moulmein and Henzada-Kyangin open extensions rose from 20,841,000 to 21,803,000. Receipts from passengers declined, but the gross receipts rose from Rs. 1,93,75,000 to Rs. 2,00,27,000. Working expenses advanced by nearly five lakhs of rupees. On the whole, the net receipts rose by nearly two lakhs—one and a half lakhs being attributable to the main line—to Rs. 71,76,000. The capital outlay on the main line amounted to 48½ lakhs of rupees, bringing the total outlay to 1,624 lakhs; and on the Pegu-Moulmein open extension to a little over half a lakh, bringing the total capital figure to 150 lakhs. The corresponding figures for the Henzada-Kyangin extension were one lakh and 64 lakhs. Twenty-four and a half lakhs were spent on the Southern Shan States Railway during the year, making the total capital outlay up to date 31½ lakhs.

Tramways.

152. No addition was made to the number of tramways in the Province. The Rangoon Electric Tramways opened no new section to traffic. The Company carried 9,213,926 passengers in the year ending with March 1911, as against 9,421,292 in the preceding twelve months: the running mileage (1,459,828 as against 1,462,703) and the traffic receipts (Rs. 8,71,745 as against Rs. 8,87,217) also showed a slight decrease. The Burma Electric Tramways and Lighting Company, Mandalay, made no addition to the open line, which remained at 6½ miles. The passengers carried numbered 2,667,022, as against 2,582,746 in the preceding year: the mileage run was 489,323 miles, as against 486,227. Progress with the Madaya-Mandalay Light Railway was again slow. An extension of time —this making the seventh extension—was requested in respect of the Madaya-Obo section. If sanctioned, this extension will complete a period of more than six years from the date of the original order requiring the section to be open within eighteen months. Four extensions of time have already been sanctioned for the Obo-Ze-gyo section, and the time within which the original order required that section to be completed has also been long exceeded. The terms of the order authorizing the construction of a steam tramway between Maungdaw and Buthidaung in the Akyab District have not yet been decided.

(iii) Canals.

Navigation Canals.

153. The Pegu-Sittang and Sittang-Kyaikto Canals, respectively 45½ and fourteen miles long, remained open for traffic throughout 1910-11. All other canals in Burma are primarily irrigation works and, with the exception of the Shwetachaung canal in the Mandalay District, not much used for traffic. The tonnage of goods carried by the Pegu-Sittang Canal was 283,000, valued at approximately one hundred lakhs of rupees: the Sittang-Kyaikto Canal carried 27,000 tons, valued at 6¾ lakhs. Each canal carried more goods than in the preceding year. The revenue derived from the Pegu-Sittang Canal was 1¾ and the expenditure 1¼ lakhs of rupees, both figures being larger than those of 1909-10. The revenue of the

Sittang-Kyaikto Canal was Rs. 7,730 and the expenditure Rs. 9,625, the receipts showing an advance and the charges a decrease, when compared with the figures of the preceding year. The net revenue from the two canals together fell from Rs. 60,000 to Rs. 44,000. The decrease was chiefly due to the completion, at a cost for the year of more than Rs. 23,000, of repairs to a breach in the Pagaing embankment. Ordinary maintenance of the Pegu-Sittang Canal cost Rs. 30,000 during the year, and the Sittang-Kyaikto Canal absorbed Rs. 6,500 in charges of up-keep. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

Irrigation.

154. The Major irrigation works of the Province comprise the Mandalay and Shwebo Canals, in operation; the Ye-u Canal, in the Shwebo District, and the Môn Canals, in the Minbu District, which were under construction during 1910-11. The figures which appear in this section are taken from the returns of the Irrigation Branch of the Public Works Department. Major irrigation works.

155. In spite of a larger commanded area being available for cultivation from recently constructed extensions, the area irrigated by the Mandalay Canal decreased by 3,000 to 55,000 acres. The diminution was in part due to an insufficient supply of water for the early wet-weather crop of rice, but there were other contributory causes, among them an unusually heavy fall of rain early in the year which damaged the canal banks, and a bad outbreak of disease, which swept off many of the plough cattle and curtailed agricultural operations. Irrigation receipts from the water-rate assessed on the canal area and from the share of land revenue claimable by the Irrigation Department together declined by Rs. 11,000, whilst working expenses rose by Rs. 14,000. On the whole, the net revenue of the canal was Rs. 21,000 less than in 1909-10. The percentage return of net revenue on capital outlay—the figure of which exceeds 53¼ lakhs of rupees—was 4·45, against 4·87 in the preceding year. Completed works.

The area irrigated from the Shwebo Canal during the year was approximately 120,000 acres, as compared with 147,000 acres in 1909-10. The diminution was due in part to floods, which occurred in May 1910 and caused damage in most of the areas planted with those varieties of rice which ripen in the hot weather or early in the rainy season; but the chief cause, as has been mentioned in paragraph 102 above, was the reversion to waste of land cultivated in the previous year, and this was due to the same rates of assessment being imposed on poor or insufficiently commanded fields as on the more fertile or better-irrigated areas. The new settlement rates will remedy this anomaly. The assessment of water-rate declined by Rs. 25,000, but the share of land revenue falling to the Department rose by more than that amount, as arrears of the previous year were adjusted in 1910-11. An expenditure of more than 1¼ lakhs during the year brought the capital account to 56¾ lakhs. The working expenses of the system rose to Rs. 1,84,000, an increase of Rs. 32,000. On the whole, the net revenue rose by some thousand rupees, to Rs. 4,23,000; the payment of arrears accounts for the fact that the books show an increase, where a decrease was to be expected. The percentage of return to outlay was 7·43, a diminution of ·02 when compared with 1909-10, but a high figure nevertheless. Little construction work was done in 1910-11 on the Mandalay and Shwebo systems; some distributaries and water courses remain to be completed on the latter.

156. More than 3¼ lakhs were spent in capital charges of the Ye-u Canal, and the capital account at the end of the year approached 10½ lakhs of rupees. About three-quarters of the earthwork in the first thirteen miles of the main canal were completed, although progress was retarded through difficulty in recruiting labour. The preliminary surveys for distributaries were almost completed. Works under construction.

Nearly 7¾ lakhs of rupees were added to the capital account of the Môn Canals, bringing the total capital outlay to 49¼ lakhs. Construction of the head

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

works of the canals continued; the Stoney sluice gates were erected, and the weir was finished. Three extra drainage crossings were completed on the North Môn Canal; practically all the bridges across this canal, and most of the distributaries, were finished. The head regulator of the South Môn Canal was completed at a cost of three-quarters of a lakh of rupees. The earthwork of the Main Canal and the widening of the canal were almost finished, and little remained to be done to distributaries at the end of the year. The canals were opened after the close of the year of report, on the 3rd of May 1911.

Minor irrigation works.

157. Among the minor irrigation works of the Province, the most important are—the various systems which take off from the Zawgyi River in the Kyauksè District, and which irrigated 75,000 acres in 1910-11, this figure being a few acres less than that of 1909-10; those which derive their water-supply from the Panlaung river in the same district, and which irrigated 46,000 acres in the year of report as against 53,000 in the previous year, the cause of diminution being in part excessive rain and in part previous losses sustained by the cultivators: the Meiktila Lake and Nyaungyan-Minhla Reservoir systems in the Meiktila District, the first of which irrigated 26,000 acres, or 4,000 acres more, whilst the Minhla embankment was breached by heavy rain in September and the irrigated area fell by 7,000, to 10,000, acres: the Man and Salin Canals in the Minbu District, which irrigated respectively 32,000 and 31,000 acres, or 6,000 and 7,000 acres more than in the preceding year: the Shwetachaung Canal in the Mandalay District, which suffered from early high floods in the Irrawaddy and irrigated 16,000 acres only, a decline of 3,000 acres: and the Mu Canal system in the Shwebo District, which supplied 10,000 acres during the year, a slightly better figure than that of 1909-10. The Provincial area irrigated by these and other minor irrigation works fell from 314,000 acres to 303,000 acres. The working expenses rose in the aggregate from $6\frac{1}{4}$ to eight lakhs, the increase being due partly to extensive repairs rendered necessary by floods, and partly to the remodelling of systems in the Mandalay, Shwebo and Meiktila Districts. Extensive operations were in progress on the Shwetachaung, Mu Canal, Meiktila Lake, and Nyaungyan-Minhla systems and on one of the Kyauksè canals.

CHAPTER V.

REVENUE AND FINANCE.

REFERENCES :—

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1911.

Administration Report of the Irrigation Department, Burma, for the year 1910-11.

Report on the Maritime Trade and Customs Administration of Burma for the official year 1910-11.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1910-11, Part I, Foreign Trade.

Report on the Administration of the Excise Department in Burma during the year ending the 31st March 1911.

Report on the Administration of Salt Revenue in Burma during the year 1910.

Report on the Administration of the Stamp Revenue in Burma during the three years ended the 31st March 1911.

Report on the working of the Income-tax Act, II of 1886, in Burma for the triennium 1908-09 to 1910-11.

Reports on the Forest Administration in Burma for the year 1910-11.

Report on the working of the Rangoon Municipality for the year 1910-11.

Report on the Reclamation of Rangoon Town Lands for the year 1910-11.

Resolution reviewing the Reports on the working of Municipalities in Burma during the year 1910-11.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.

Statistics of British India, Parts IV (*a*), IV (*b*), and VIII.

Provincial Settlement.

158. The receipts and expenditure of the Province are classified and recorded in three sections, Imperial, Provincial and Local. Whether any particular item of receipt or charge is Imperial, or Provincial, or partly one and partly the other, depends upon the terms of the Provincial financial settlement. The settlement in force in the case of Burma in 1910-11 was drawn up at the beginning of 1907, and had effect from the 1st of April of that year. The assignment from Imperial to Provincial revenues required to make the sum of the Provincial probable future receipts equal the sum of the Provincial probable outgoings was fixed at Rs. 90,68,000, to be credited annually. The assignment credited in 1910-11 was largely above this standard figure, a special grant of twenty-five lakhs of rupees having been made in aid of Provincial balances, and a further grant of fifteen towards expenditure on education and sanitation. The figure was 133 lakhs, against 108$\frac{3}{4}$ lakhs in 1909-10. Important changes in principle, radically affecting the amount of the assignment, were sanctioned after the close of the year 1910-11, but the changes are to have effect from the beginning of 1911-12 only, and do not therefore concern the finance of the year dealt with in this report.

The Local section comprises District Cess Funds in Lower, and District Funds in Upper Burma, and Municipal and other funds raised for special and local purposes, apart from the general revenues.

Except under the head of *Land Revenue*, where expenditure, under the settlement of 1907, was to be debited entirely to Provincial funds, whilst Provincial funds received one-half only of the receipts, Imperial and Provincial funds contribute to the charges classified under a particular budget head in the same proportion as they benefit by the revenue accruing under the head. These contributions form the greater part of the Imperial expenditure, so far as it is dealt with in this report, but there are large outgoings which are entirely Imperial under the heads *Irrigation* (*Major Works*), *Customs*, and *Military Works*, see paragraphs 155 *et seq.*, 163, 139 and 81.

Gross Revenue and Expenditure.

CHAP. V.—REVENUE AND FINANCE.

159. The gross receipts classified as Imperial in the twelve months ending with March 1911 rose by 3½ to 393 lakhs of rupees. Provincial receipts advanced by 19½ to 488 lakhs: District and District Cess Funds together received practically the same amount as in the preceding year, namely 35 lakhs: Municipalities received approximately 93 lakhs, or twelve lakhs more than in 1909-10: and the aggregate income of other funds was 87, as compared with 129 lakhs.

On the expenditure side, Imperial outgoings totalled 4¾ lakhs more than in 1909-10, rising to 75¼ lakhs of rupees: the outgoings classified as Provincial increased by 26, to 469 lakhs: the expenditure of District Cess and District Funds together remained practically stationary at 36¼ lakhs: Municipalities spent 87 lakhs, as compared with 83½: and other funds 96¾, as against 145 lakhs.

The transactions of the Rangoon and Moulmein Municipalities, the Rangoon Port Trust, and the Rangoon Pilot Fund are included in the figures stated above, although these funds do not bank with Government.

(*a*) *IMPERIAL REVENUE AND FINANCE.*

[*In this section are discussed sources of revenue or expenditure which are partly, as well as those which are wholly, Imperial.*]

Total Imperial figures: notable variations.

160. The advance of 3½ lakhs in Imperial receipts was the result of opposite movements the chief of which were an enhancement of 30½ lakhs in Customs, 3¾ in Forest receipts and 1½ in Stamps, against a decline of 30½ lakhs in Land Revenue and 2¼ in Excise. The increase of 4¾ lakhs in Imperial expenditure was the result of increased outgoings under several heads, the chief items being 1¼ lakhs more spent on Customs, and one lakh more on Forest charges.

Explanations of important variations under these and other particular heads f account will be found in the paragraphs which follow.

Land Revenue.

Land Revenue receipts.

161. Under the settlement of 1907 receipts classified under the Major Head *Land Revenue* were to be divided equally between Imperial and Provincial, whilst the expenditure was wholly Provincial. After the close of the year of this Report orders were issued raising the Provincial share of receipts to five-eighths, and reducing the fixed assignment from Imperial to Provincial revenues, *vide supra*, correspondingly. The change did not, however, affect the finance of the year. Although receipts were to be equally divided, any adjustment that it may be found necessary to make from time to time in the terms of the financial settlement is made by addition or subtraction of the amount concerned to or from the *Land Revenue* totals, and this has the effect of rendering the shares ultimately taken by Imperial and Provincial apparently unequal.

As has been explained in previous reports, *vide* paragraph 192 of the Report for 1909-10, the figures of land revenue given in the financial accounts are for the year ending with the 31st March, whilst the figures given in the *Report on the Land Revenue Administration* are for the agricultural year ending with the 30th June. They therefore differ in particulars, but the bulk of the revenue is collected in the common nine months, and the reasons assigned in the Departmental report to account for variations from one year to another would in many cases apply to variations appearing in the Financial accounts. The gross land revenue, as shown in the latter, amounted in the year of report to 406 lakhs of rupees, a decline of thirteen lakhs from the figures of 1909-10. After adjustment of contributions, the Imperial and Provincial shares of receipts amounted to seventy and 336 lakhs respectively, as against 100½ and 318¾ lakhs in the earlier year, whilst the charges—all of which fell to Provincial—declined by 1¼, to 65 lakhs of rupees.

The receipts of land revenue proper have been discussed in an earlier paragraph, *vide* Chapter II: the figures quoted in the remainder of this paragraph for the other heads of land revenue are taken from the *Report on the Land Revenue Administration*. The number of persons assessed to the Capitation-tax in Lower Burma increased by 10,684, the increase in the previous year having been 29,144; and in 1908-09 41,038. The Henzada District, with 9,066 additional assessees, returned the largest increase, and Akyab—owing to the fact that the tax cannot be legally demanded from persons arriving at the town of Akyab—the largest decrease, 7,223. The total collections increased by nearly half a lakh, to 54¼ lakhs.

Increases in the number of households assessed to *thathameda*—the household tax—were recorded in every district of Upper Burma except one. Remissions fell by Rs. 4,414: outstandings were of trifling amount and the collections rose by over three-quarters of a lakh, to more than 42 lakhs of rupees. The number of households assessed advanced by 23,673, among the causes which contributed being the return of emigrants, driven to Lower Burma in past years by adverse harvests, the inclusion in the rolls of employees of the Oil Companies, and the assessment of migratory coolies.

The collections of fishery revenue due for the year advanced to thirty lakhs of rupees, or an increase of more than half a lakh of rupees, this figure being the resultant of an increase of nearly three-quarters of a lakh from leased fisheries and a decline of Rs. 14,944 in the income from net licenses. Remissions were low, and outstandings fell by fifty per cent. to the small amount of Rs. 5,442.

The miscellaneous receipts classified under the head of *Land Revenue* include fees, rents and royalties on mineral products—these have been mentioned in paragraph 121, Chapter IV above, under the title *Mines and Quarries*—receipts under the Village Act, and the rent of Town Lands not credited to Local Funds. They amounted to 34¾ lakhs, an advance of nearly one lakh on the figure of 1909-10.

Canal (Navigation and Irrigation) Revenue.

162. Mention has been made in the section of Chapter IV entitled *Canals*, paragraph 153 *et seq.*, of the amount of revenue derived from canals and irrigation works in 1910-11. Receipts from canals used for navigation purposes are wholly Provincial: the revenue derived from and the expenditure incurred on Minor irrigation works are also wholly Provincial: whilst receipts and expenditure on Major irrigation works are wholly Imperial.

Sources of Imperial Revenue other than the Land.

163. Receipts and expenditure under *Customs* are wholly Imperial. The total revenue of the Rangoon Custom House is shown in the departmental report as having risen in 1910-11 from 126 to 156 lakhs of rupees, and the total disbursements from 5½ to seven lakhs: the net revenue rose by 28½, to 150 lakhs, an improvement of 23·8 per cent. on the figure of the preceding year. The import duty on salt was almost stationary at seventeen lakhs, and on other goods rose in consequence of the enhanced tariff by some nine, to 64½ lakhs: the export duty advanced by 21¼ lakhs, to 74½ lakhs, chiefly owing to increased shipments of rice to foreign ports. Customs.

Customs receipts at subordinate ports remained practically stationary at 26½ lakhs, whilst the disbursements rose slightly, to 1½ lakhs.

164. The Excise Department of Burma purchases opium from the Government of Bengal at Rs. 8½ per seer of 2 2/5 lbs. weight and sells it to licensed vendors at rates which were usually, in the year of report, Rs. 70 per seer; the vendors make their profit by retailing the opium at a higher rate fixed by Government. The prevailing rates were Rs. 80 per seer for crude, and Rs. 100 per seer for prepared opium. The purchase price of Rs. 8½ per seer is credited to the head *Opium*, the receipts and expenditure of which are entirely Imperial. Receipts credited in the accounts to this head amounted to Rs. 4,34,347, the Opium.

CHAP. V.—REVENUE AND FINANCE.

decline of Rs. 21,000 from the figure of 1909-10 being due to the policy of restricting the amount of opium issued to consumers of the drug. The profit on sales of opium realized by the Excise Department is classified in the accounts under *Excise*, and a moiety of both receipts and outgoings under that head is Imperial and a moiety Provincial.

Salt: changes in law and organization.

165. Revenue and expenditure classified under the head *Salt* are wholly Imperial. The revenue is derived from duty on foreign salt imported, mainly at Rangoon, and from duty on salt produced locally. In seven districts the duty is collected direct from bond by a special staff; in the remaining districts it is assessed indirectly, on the number of cauldrons or pots used in the manufacture. In September 1905 orders had been passed by the Government of India to the effect that the local manufacture of salt (in the absence of special considerations) was to be suppressed gradually in districts where the average revenue demand fell below Rs. 2,000 per annum; in the districts where manufacture continued, the duty was to be enhanced by 25 per cent. and measures for concentrating factories were to be adopted: and the Salt and Excise Departments were to be amalgamated under the control of the Excise Commissioner. Proposals for the concentration of manufacture were sanctioned during the year of report and other proposals for the better supervision of the industry and for storage of salt and for amalgamation of the Salt and Excise Departments were framed. A Salt Manual was issued, and the Directions for Upper and Lower Burma were consolidated. In the districts under the direct-duty system no payments are now made to the Inspector, but issues are made against a receipted *chalan**. A Salt Bill for Burma was drafted by the Financial Commissioner. The enhancement of the duty by 25 per cent. did not come regularly into force until after the termination of the year.

Supplies of salt.

166. The estimated output of salt in the districts under the system of indirect, or composition duty fell from 74,682 to 66,759 maunds of $82\frac{2}{7}$ lbs. weight, and the issues of Burma-made salt from bond in the districts under the system of direct taxation from 669,320 to 539,685 maunds, the aggregate issues of locally produced salt thus decreasing from 744,002 to 606,444 maunds. The actual output of such salt declined by 88,776 maunds. Untimely rain caused much of the diminution, but the growing popularity of foreign salt was not without effect. The quantity of foreign salt on which duty was paid rose from 1,635,703 to 1,768,047 maunds, the increase of 132,344 maunds nearly counterbalancing the decline in issues of locally-made salt. The reports state that foreign salt is ousting the local product even for purposes of fish-curing.

Revenue and miscellaneous.

167. The method of assessing duty on the local manufacture underwent no change. The number of licenses for manufacture fell from 1,529 to 1,499, the districts under the system of direct duty showing a decrease, as well as those which pay the composition duty. A further substantial decline in the average output per vessel was manifested throughout the Province. The collections of revenue from the local product during the year 1910 fell by Rs. 72,962, or twenty per cent., the districts under the direct system showing a higher percentage of decrease than those under the composition system, since in the latter case the fees are usually paid in advance, and the receipts are less affected by a bad season. In the Financial accounts the receipts under *Salt* in 1910-11 are shown as Rs. 20,89,510, and the expenditure as Rs. 27,770. Imports of foreign salt during 1910 increased by 9·7 per cent. but were still sixteen per cent. lower than in 1908, in which year the highest figure was recorded. Imports of German salt rose by 145,110 maunds, at the expense of imports from Aden, Spain and Salif, and the total amount of duty realized rose by 7·6 per cent.

Excise: general.

168. The allocation between Imperial and Provincial funds of *Excise* receipts and expenditure has been noticed above. The gross receipts for 1910-11

* The document authenticating a payment into the Government Treasury.

are shown in the departmental report as having totalled 75¾ lakhs, as compared with 80¾ lakhs in 1909-10. The decrease of five lakhs is explained by a fall in the revenue from imported liquors and locally produced spirit excised at the tariff rate of duty of 2¾ lakhs, and in the revenue from opium of 2¼ lakhs. Charges incurred by Excise establishments fell by half a lakh, to 14½ lakhs, the net revenue thus declining by 4½ lakhs, to 61¼ lakhs of rupees.

Excise: opium.

169. The *Excise* revenue from opium decreased from 39¾ to 37½ lakhs of rupees. License fees for the sale of opium fell by Rs. 13,736, being adjusted to decreasing sales, and there was a decrease under *duty* of more than two lakhs, in the main owing to vendors taking smaller issues of opium in consequence of smaller sales at the shops. The Rangoon Town District alone showed a decline of nearly a lakh of rupees, and the total quantity of Excise opium (including confiscated opium) issued to licensed shops fell by 3,011, to 52,227 seers. Decreases occurred in nine Lower Burma districts, and are mainly attributable to the increased stringency of the Opium Rules and Directions issued during the year and to continued improvement in the control over sales at the shops, as the records of consumers have been made more complete. Indian consumers in Rangoon Town were brought on to the register for daily sales hitherto used only for consumers other than Indian, and this marked a considerable advance in controlling consumption. The total number of purchasers of all nationalities was found to be 119,867, and the average quantity purchased per man per year was 3·9 tolas* only. The ordinary daily consumption per head for Chinese, Registered Burmans, and Indians has been laid down and house-to-house visits are prescribed, and it was found possible during the year to detect and remove from the registers the names of many bogus consumers. The possibility of further reduction in the rates of consumption is foreshadowed.

The opinion was expressed in the departmental report for 1909-10 that the quantity of shop opium available for illicit sale was negligible. The large reduction of issues effected in 1910-11 indicates, however, that supplies had been available and that the increased restrictions were necessary. Little, it is stated, now remains to be done to prevent shop opium from being hawked for sale. The price at which smuggled Bengal Excise opium stood in Rangoon at the close of 1910-11 was Rs. 125 per seer as compared with Rs. 75 in the early part of 1909-10, but it is doubted whether the rise in price proves conclusively that that channel of contraband supply has also shrunk. Seizures of opium rose from 1,483 to 1,665 seers, over 75 per cent. of the Lower Burma seizures (excluding Arakan) being made in Rangoon Town, but the difficulty of obtaining evidence of possession from the native crews of steamers, which are the main smuggling agency, makes it hard to cut off the source of supply. Arakan obtains its contraband opium through the Akyab District, and the supply is said to be falling. In the north-eastern frontier districts 'foreign' opium from the Shan States is sold in the licensed shops. In consequence of the action of the provincial government of Yünnan in pursuance of the Chinese policy of prohibition, the wholesale price of Shan opium at the principal market at Lashio has gone up from Rs. 17 to the price—when the departmental report was written—of Rs. 50 per viss, the price at the beginning and end of the year of report being Rs. 30 and Rs. 44. Smuggling from Yünnan is reported practically to have ceased, but many of the displaced poppy cultivators are said to have moved over from Yünnan into the Chinese and British Shan States and into unadministered territory, and the fear is expressed that new cultivation in these areas will revive smuggling in the future.

The taste for opium appears to be waning, as the number of registered consumers decreased from 16,614 to 15,298. The wholesale price of Bengal Excise opium, as stated above, was in the case of most shops Rs. 70 per seer. In a few cases rates varying from Rs. 35 to Rs. 50 were sanctioned. 'Foreign' opium for four shops was imported, as in the previous year, on payment of a duty of Rs. 17 per viss (Rs. 9-9-4 per seer). No changes were made in the retail rates at which Excise opium was sold, the prevailing rates being one rupee for crude and Re. 1-4-0

* One tola = 180 grains.

CHAP. V.—REVENUE AND FINANCE.

for prepared opium per tola. In the shops of the northern districts which issue 'foreign' opium, retail prices were twice raised during the year, in order to compensate the licensed vendors for the continued rise in the price of that kind of opium. The amount of opium sold at the shops fell by 3,448 seers. Seventy fewer persons were convicted for offences under the Opium Act.

Excise: liquor.

170. The imports of spirit, omitting imports from other provinces of India, fell by nearly 50,000 gallons, heavy decreases appearing under brandy, gin and rum. The contraction is attributed mainly to the enhancement of the import duty in February 1910 to Rs. 9-6-0, from the previous rate of Rs. 7 per proof gallon. The present rate affords strong inducement to illicit distillation, and in parts of Lower Burma this is stated to be rampant. Special measures to check the practice are under consideration. The fees obtained from licenses for the vend of foreign liquors and Burma-made foreign spirit fell from twelve to 9¾ lakhs. In Rangoon alone there was a fall of 1¾ lakhs. The decline is attributed to the uncertainty felt by auction-purchasers as to the effect on consumption of the enhanced tariff rates. The quantity of malt-liquor issued from the Mandalay brewery decreased from 288,000 to 250,000 gallons, the fall being explained by the withdrawal of a British regiment. Foreign spirit excised at the tariff rate was manufactured during the year at the Mandalay, Moulmein and Toungoo distilleries; the total issues fell by 13,529 gallons, about 10,000 gallons less issuing from the Mandalay Distillery alone: the enhanced tariff is the only explanation given there for the decrease, but at Moulmein, where issues fell by 5,885 gallons, the competition of Java rum and the introduction of illicit spirit into the shops which sell foreign liquor retail were suggested. The Contract Distillery system for the supply of country spirits was extended during the year to parts of the Mandalay Division and to the Akyab District. Issues during the year increased from 13,861 to 25,200 London-proof gallons. Retail licenses increased from 46 to 73, whilst the number of outstills fell from 37 to 25, and of shops licensed to sell retail country spirits (outstill liquor) from 56 to 34. Issues (exclusive of the new areas) increased by 1,676 London-proof gallons. Shops selling *tari** retail declined in number from 750 to 718, but the revenue from *tari* license fees rose slightly, to nearly seven lakhs. The number of licenses issued during the year for the sale of country fermented liquor other than *tari* increased by four, to 390. There are suspicions, which were not however verified, that these shops are sources of supply of illicit spirit. The number of persons convicted for illicit distillation rose from 448 to 504, and the seizures of country spirit from 1,571 to 1,898 gallons. The number of persons convicted for offences under the Opium and Excise laws increased from 7,521 to 8,106.

Cocaine and morphia.

171. Ganja has not, up to the present, obtained any hold over the Burman, but the cocaine habit is now firmly fixed in the Pegu and Irrawaddy Divisions and the more numerously held opinion is that it is a supplement to, not a substitute for, opium. Seizures of cocaine increased from 1,958 to 3,244 ounces. The taste for morphia in Rangoon is reported to be spreading.

Stamps.

172. The Imperial share of the receipts and outgoings recorded under the head *Stamps* is one-half. Receipts and outgoings on account of Postage and Telegraph stamps are not, however, classified under this head, but under the wholly Imperial head *Post Office*, and as one-anna postage stamps are used also for revenue purposes an annual credit of two lakhs of rupees is made from Imperial to Provincial revenues under the head *Stamps*. The receipts for the year 1910-11, as shown in the departmental report, all but reached 39 lakhs of rupees, or 2¾ lakhs more than in the preceding year. Sixteen and a quarter lakhs were received under the Stamp Act and 22¾ under the Court Fees Act. The receipts, in spite of the improvement in the year, were 1½ lakhs below the figure of 1907-08. There was

* *Tari*, the fermented sap of the toddy palm, *Borassus flabelliformis*.

a recovery under both judicial and non-judicial stamps, the improvement under non-judicial stamps being as much as 2½ lakhs. Charges fell slightly, to 1¼ lakhs of rupees.

Judicial stamps.

173. There was a slight recovery under court-fees proper (*i.e.*, exclusive of stamped copy-sheets) after the continuous decline recorded in the three preceding years, but in some districts the increase was due not to litigation proper, but to stamps on applications for succession certificates or to court-fees on probates and letters of administration. The departmental reports in a few cases mention a restoration of confidence among the *chetty* * money-lenders. In Lower Burma twelve out of nineteen districts showed an increase in receipts from the sale of court-fee stamps, whilst in Upper Burma nine districts recorded increases against eight showing decreases. Stamped copy-sheets brought in Rs. 1,06,000 against Rs. 1,01,000 in 1909-10, and the receipts under this head have steadily risen for the past eight years.

Non-judicial stamps.

174. The receipts from the sale of non-judicial stamps rose by 2½ lakhs, the total of 14¼ lakhs exceeding the high figure of 1904-05 by 1¾ lakhs. Under the head of Impressed Stamps all districts in Lower Burma except five show an increase. There has been, however, a steady decline for the last three years in Rangoon, and this is explained by the fear of land legislation, over-speculation in other directions than land, namely in company shares, and a decline in the value of land following on the expiration of a period of inflated values. The variations in Upper Burma districts do not call for comment, except a decline of Rs. 11,678 in Magwe, accompanying a diminution in the number of transactions in oil-wells and sites. A comparison of the figures for *hundis*, or inland bills of exchange, with the figures of the preceding year is vitiated by the increase in the rates of duty imposed on such bills by Act VI of 1910. The increase in revenue (Rs. 18,373) is, however, reported to have justified the expectations entertained at the time of passing the Act. Under the heading of Impressed Labels, or Special Adhesive stamps, there was a notable recovery of more than a lakh, nearly the whole of the total and of the increase accruing in Rangoon Town. It is attributed in part to the higher rates of duty imposed by Act VI on bills of exchange, for which these labels are largely used, and partly to a windfall of nearly half a lakh received as duty on a single instrument. The increase of speculation in Rangoon—the nominal capital of new joint-stock companies was 228 lakhs of rupees in 1909-10 and 209 lakhs in 1910-11—explains a rise in the receipts from share-transfer stamps from sixteen to thirty thousand rupees. The number of stamp-vendors rose by 26, but nearly all district officers are of opinion that the importance of stamp-vendors at outlying villages is decreasing. Documents impounded by the Courts fell from 1,070 to 941, and the duty and penalty realized from Rs. 12,223 to Rs. 11,001. The number of cases dealt with by Collectors rose on the other hand from 555 to 648, and the duty and penalty increased by nearly a lakh, but of this sum more than half represents the composition duty on debenture loans floated by the Rangoon Municipality and the Rangoon Port Trust. The number of stamp prosecutions rose from ninety to 105.

Assessed Taxes.

175. Receipts—except for a few wholly Imperial items—and expenditure under the head *Assessed Taxes* were in the year of report divided equally between Imperial and Provincial. The Income Tax Act, though in force in the whole of Burma, is operative only in Lower Burma, in Mandalay Town and—in other areas of the Upper Province—in the case of employees of industrial and commercial companies who are resident but not permanently domiciled in Upper Burma. The tax is collected through the Rangoon offices of the companies. The Income-tax Collectorates and the methods of assessment and collection remained the same as in 1909-10. The only important change in the rules was made in July 1910, and permitted the tax upon incomes exceeding Rs. 10,000 to be paid in three

* *Chetty*, a Madras caste which includes money-lenders.

CHAP. V.—REVENUE AND FINANCE.

instalments. Coercive processes for the recovery of the tax increased from 138 to 290, but two districts—Myaungmya and Rangoon Town—accounted for 222 of the total number. Petitions for reduction of the original assessment fell from 20·8 to 19·6 per cent. of the number of persons originally assessed, and reductions in the total assessment fell from 10·3 to nine per cent. In the Hanthawaddy District the reduction was as high as 26 per cent., but this was because many assessees do business both in Rangoon and in the Hanthawaddy District and, in order to preclude the possibility of income going unassessed, it is necessary to fix the original assessment at a high figure. The proportion of persons upon whom penalties were levied to the total number of assessees rose from 6·8 to 13·2, whilst the percentage of penalty actually realized advanced from 60·4 to 70·9. The net collections rose from Rs. 18,35,413 to Rs. 18,96,469, the excess over the collections of 1909-10 being three per cent. Expenditure rose by Rs. 5,000, to Rs. 45,000. The number of persons assessed upon salaries, annuities and gratuities paid by Government continued to increase. The number of assessees under the heading *Salaries paid by Local Authorities* also rose, as did the tax on salaries paid by private employers. Seven-eighths of the tax under this head was collected in Rangoon. The receipts from profits of Companies stayed practically at the figure of the previous year. Receipts from the tax on Interest on securities increased slightly. The amount of Government securities held in the Province advanced by one, and of securities of Local Authorities or Companies by 27 lakhs, as compared with 1909-10. Collections under the heading *Tax on Income from other Sources* rose by Rs. 7,000, but are still considerably below the figures of 1908-09 and have increased by only Rs. 23,000 since 1905-06. All the districts of the Pegu Division show a fall in collections, and nearly every district report refers to the winding up of the *chetties'* * businesses as having adversely affected collections.

Forests.

176. Receipts and expenditure classified under the head *Forests* were divided equally between Imperial and Provincial in the year of report. The change by which they became wholly Provincial did not come into effect until the beginning of 1911-12. The gross receipts of the Forest Department for the year ending with June 1911, as recorded in the departmental books, rose from 91½ to 105½ lakhs of rupees, the large increase being chiefly due to a greater amount of teak being extracted by lessees, to the receipt of 4½ lakhs from the disposal of the Mergui Rubber Plantation, and to an advance in the quantity of cutch and lac exported. The advance was abnormal. Expenditure rose from 36¾ to 39¼ lakhs of rupees, nearly the whole of the increase of 2½ lakhs being attributable to growing establishments and to charges incidental to reorganization. The net revenue rose from 54¾ to 66 lakhs of rupees, and the percentage of net to gross revenue from 59·8 to 62·6 per cent.

(*b*) *REVENUE AND FINANCE OTHER THAN IMPERIAL.*

Provincial Receipts and Expenditure.

Provincial receipts.

177. The total Provincial receipts rose from 468½ to 488 lakhs of rupees. Provincial Funds derive the bulk of their receipts from the heads which under the settlement of 1907 were to be shared with Imperial Funds, and which have been discussed above, the receipts from wholly Provincial heads of account in the financial year 1910-11 totalling 31½ lakhs of rupees only. The Provincial share of receipts classified under *Land Revenue* advanced from 318¾ to 336 lakhs. The apparent improvement of 19½ lakhs in the total Provincial receipts and of 17¼ in the Provincial share of land revenue are alike due to an adjustment of the kind explained above under the title *Land Revenue*, of an additional assignment of 24¼ lakhs received in the year of report. If the assignments of the two years 1909-10 and 1910-11 are excluded, the Provincial receipts of Land Revenue in

* *Chetty*, see preceding foot-note.

the later year, as shown in the Financial accounts, disclose a large decrease, which those accounts ascribe to delay in the preparation of assessment rolls accompanying pressure of work in connection with the census, and to diminished activity in the petroleum and fishery industries. The departmental report—*vide* Chapter II above—makes it, however, clear that there was a real check in the expansion of receipts from ordinary Land Revenue. There was an advance in the Provincial share of revenue classified under *Stamps*, in part owing to large realizations of composition duty on an issue of debentures and in part to other causes already mentioned, and under *Forests*. A large decrease under *Excise* is attributed to the effect of enhanced tariff duties and to a restrictive opium policy, and under *Irrigation, Minor Works and Navigation* adverse climatic conditions affected the incomings. The last-named is the chief of the heads of receipt which belong wholly to the Provincial section.

Provincial Expenditure.

178. The aggregate Provincial expenditure rose from 443½ to 469 lakhs of rupees. A contribution of fifteen lakhs to the Port Trust for expenditure on the Rangoon river-training scheme and increased outlay on sanitary improvements account for an increase of 17½ lakhs in the expenditure classified under *Civil Works* (*Civil*). There was an increase of more than three lakhs under the head *Police*, owing largely to the cost of frontier expeditions; and an increase of two lakhs under *Law and Justice, Courts of Law*, accompanied the appointment of additional Judges and the trial of cases in connection with misappropriation of the funds of the Government Kheddahs. Expenditure classified under the head *Land Revenue* was, according to the financial settlement of 1907, to be borne entirely by Provincial Funds and fell in the financial year 1910-11 by ¼, to 65 lakhs of rupees. A decline of more than two lakhs in the *Medical* head was due, among other causes, to a change in the accounts classification followed.

The most costly Provincial service is the Police, which claimed 121 lakhs in the year of report: the grant under *Civil Works* (*Public Works Department*) remained practically unchanged at 67¾ lakhs: Courts of Law absorbed 47½ lakhs: the Provincial share of Forests, 20 lakhs: Medical services, 19 lakhs: Education, 18¾ lakhs: the Provincial share of the charges classified under *General Administration* cost 14¾ lakhs: Jails, 13½ lakhs: Minor Irrigation Works and Navigation Canals, thirteen lakhs: and Ports and Pilotage, 12¼ lakhs.

Local Funds.

District Cess Funds.

179. The number of District Cess Funds stood at twenty during the year 1910-11; there is a fund for each Civil district in Lower Burma, and one for the district of Thayetmyo, which falls partly within Upper and partly within Lower Burma. The Funds are maintained chiefly by a cess of ten per cent. on the collections of ordinary Land Revenue; in their accounts, these receipts are shown under the head *Provincial Rates*. Other items of receipt are the collections from certain markets and, in some places, fees from ferries and slaughter-houses. The total receipts of the Funds increased from 28½ to 29¾ lakhs of rupees. This was the net result of variations the most important of which were—a decline of nearly a lakh in the receipts credited to *Provincial Rates*: these vary with the figure of ordinary Land Revenue, and fell in the year of report along with the latter; an increase of nearly two lakhs under the head *Miscellaneous*, due chiefly to the transfer, under the orders of Government, of larger amounts than in 1909-10 from the credit balances of certain of the Funds to meet overdrawals of others: and an increase in receipts classified as accruing from *Civil Works carried out by Civil Officers*, owing to larger collections at ferries. The aggregate expenditure of the Funds fell by Rs. 16,000. There was a decrease of more than three lakhs in the expenditure carried out by Civil officers on Civil works. Expenditure on education declined slightly, and there were large counterbalancing enhancements in the expenditure under the *Miscellaneous* head, reflecting transfers between Funds: in the outlay incurred by officers of the Public Works Department on Civil works: in payments to medical officers: and

CHAP. V.—REVENUE AND FINANCE.

under *Ports and Pilotage*, in the purchase of a steam launch. All the funds were solvent at the end of the year, though some had temporarily overdrawn their credit balances during its course.

District Funds

180. There are sixteen District Funds in Upper Burma, each Civil district, except Thayetmyo, possessing a Fund. They receive no portion of the collections of Land Revenue, but have assigned to them various sources of supply, such as market and slaughter-house fees, and fees from certain ferries; they also receive variable grants from Provincial Revenues. The aggregate revenue of the Funds declined by $1\frac{1}{4}$, to $5\frac{1}{4}$ lakhs of rupees. There was an increase of Rs. 16,000 in the receipts classified under the head *Police*, but a decline of one and a half lakhs under the head *Civil Works by Civil Officers*, no contributions for public works having been made by the Local Government during the year. Expenditure fell slightly on the whole. All the Funds were solvent at the end of the year except the Shwebo District Fund, which closed with a small deficit.

Other Funds.

181. The number of Cantonment Funds stood at seven and, in the aggregate, neither income nor expenditure varied much from the figures of the preceding year. Two of the Funds—those at Bhamo and Shwebo—closed the year with credit balances of small amounts; as regards the other five, no apprehension of insolvency exists.

The number of Town Funds was seventeen, as against sixteen in 1909-10. The Town Fund of Insein became a Municipal Fund, but two new Funds were created, for the towns of Nattalin and Pyawbwè. The aggregate income rose by Rs. 28,000, to five lakhs approximately, whilst expenditure declined: all the Funds ended the year with adequate closing balances.

There were, as in 1909-10, six Port Funds, excluding the Rangoon Port Trust, the affairs of which are dealt with in paragraph 84, *supra*. In the order of importance, the six funds are—Moulmein, Akyab, Bassein, Tavoy, Mergui and Kyaukpyu. The receipts of the Bassein and Moulmein Funds fell largely, the Moulmein Fund showing a diminution of more than two lakhs. The Akyab Fund enjoyed a better income than in the preceding year. All the funds were reported to be solvent at the close of the year.

The four Pilot Funds, at Rangoon, Akyab, Bassein and Moulmein, closed the year with credit balances. More rewards were paid out of the Rangoon Police Reward Fund than in 1909-10. Both receipts and expenditure of the Educational Syndicate Fund declined, and it ended the year with a credit balance of Rs. 20,885. The receipts of the Steam Boiler Inspection Fund rose by Rs. 4,000 to Rs. 58,000: the expenditure amounted to Rs. 38,000.

Road and Education Cesses.

182. No special cesses are levied in Burma for the construction and maintenance of roads and the provision of education, but the ten per cent. cess levied on Land Revenue in Lower Burma is in part devoted to education and local public works.

Municipal Revenues.

Rangoon Municipality.

183. The gross income of the Municipality of Rangoon for the financial year 1910-11 was 47 lakhs of rupees and the ordinary income, excluding debt and advance accounts, approached 37 lakhs. There was an increase of ordinary income of $1\frac{3}{4}$ lakhs, due in part to the normal growth of receipts from taxes and in part to the realization of taxes from certain areas which were transferred from the Rangoon Cantonment to the Municipality during the year. About half a lakh in excess of the receipts of the preceding year was derived from Municipal property and powers apart from taxation, the increment accruing chiefly under the heads of market and slaughter-house fees. The gross expenditure of the year was nearly 41 lakhs; the ordinary expenditure was $34\frac{3}{4}$ lakhs, as compared with 32 lakhs

in the preceding year. Loan charges increased by nearly half a lakh, and half a lakh was spent in the suppression of an outbreak of glanders among the hackney-carriage ponies. One and a quarter lakhs more than in 1909-10 was spent on public works, and the census entailed special expenditure amounting to Rs. 12,000. On the other hand the expenditure on plague fell by half a lakh, owing to reduction of establishment and discontinuance of the practice of giving rewards for the destruction of rats. A 4 per cent. loan of Rs. 20,70,000 was raised, and the outstanding liabilities of the Municipality at the end of the year amounted to 187 lakhs of rupees. In this figure is included 60½ lakhs, the sum of various loans borrowed for Reclamation Works. The Town Lands Reclamation Fund appropriated fifteen lakhs of the loan of Rs. 20,70,000, and spent 7¼ lakhs on works, and 4½ on loan charges. Its financial position was examined during the year. The existence in the years preceding 1908, when a scheme to regulate the future operations of the Fund was framed, of inflated values of land in Rangoon was found to have vitiated the financial forecast on which the scheme was based. The demand for land has since fallen, and until either the demand revives, or rents of reclaimed land can be raised, the ordinary receipts of the Fund will not suffice to meet more than the loan charges. Orders to curtail works were accordingly issued at the close of the year.

Other Municipalities.

184. The Moulmein Municipality does not bank with Government. Excluding it and Rangoon, there were 44 Municipalities at the close of the financial year 1910-11, an increase of one over the figure of 1909-10. Exclusive of debt accounts and opening balances, the aggregate income of the Municipalities was 38 lakhs of rupees, as compared with less than 36 in the preceding year, and the ordinary expenditure rose by 3½ to 38½ lakhs. Municipal rates and taxes produced little more than in 1909-10, the total being Rs. 14,83,000: realizations under Special Acts rose, but not considerably: the revenue from Other Sources was better by three quarters of a lakh: and grants and contributions advanced by Rs. 87,000. On the expenditure side, 2½ lakhs of the additional outlay was spent on those services which are collected beneath the heading *Public health and convenience* in the accounts: three quarters of a lakh more than in 1909-10 was devoted to capital and recurring charges connected with the water-supply: one and a quarter lakhs more on conservancy: almost as much more on hospitals and dispensaries: and over half a lakh more on markets and slaughter-houses. Much of the increased expenditure was aimed at the prevention of plague, although not recorded in the accounts under the head *Plague*, under which the expenditure of the year declined by more than one lakh. Less money was, of necessity, devoted to the construction and maintenance of roads, since sanitary improvements are regarded as being of prior importance.

The debts owed by Municipalities (excluding Rangoon) to Government amounted to 10¾ lakhs of rupees at the close of the year, and to the public to more than eighteen lakhs.

Other Funds.

185. There is one Trust Fund, that of the Official Assignee. There are four Educational Endowment Funds, the Jardine, Maung Ohn Ghine, Renoung and Copleston Funds. None of the five funds banks with Government, and their transactions do not appear in the Government books.

Paper Currency.

186. The number of Government currency notes of all kinds in circulation on the last day of March rose from 1319 thousand, worth 359 lakhs of rupees, in 1910 to 1702 thousand, worth 404 lakhs, in 1911, the large expansion of the earlier year being repeated in the year of report. The local preference for ten-rupee and one hundred-rupee notes continues. The fact that the returns show a

CHAP. V.—REVENUE AND FINANCE.

decline from 212 to 197 thousand in the circulation of notes of the value of one hundred rupees is explained to be due to a particular accidental cause. Apart from one hundred-rupee notes, the figures of circulation exhibit a decline in 1910-11 only in the twenty-rupee, five hundred-rupee, and one thousand-rupee denominations, and the circulation of the denominations above one hundred rupees is of minor significance as an index to the extent to which the use of notes is becoming popularized. The circulation on that day of 1911 of five-rupee notes rose by 18,000, as compared with the circulation on the same date of the preceding year: of ten-rupee notes by 39,000: and of fifty-rupee notes by 4,000. The last two denominations were made encashable at any Currency Office shortly before the commencement of the financial year 1910-11, and this fact accounts for much of the expansion. Excluding ten thousand-rupee notes, the highest circulation during the year was recorded on the 15th March 1911, when notes to the value of 410 lakhs of rupees were out. The corresponding date and value in 1909-10 were the 7th March and 390 lakhs.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

REFERENCES:—

Report on the Sanitary Administration of Burma for the year 1910.
Triennial Report on the Hospitals and Dispensaries of Burma for the years 1908 to 1910
Report on the working of the Government Medical School, Rangoon, for the year 1910.
Note on the Lunatic Asylums in Burma for the year 1910.
Triennial Report on Vaccination in Burma for the years 1908-09 to 1910-11.
Statistics of British India, Part V.

Births and Deaths.

Number of births and deaths.

187. The registration of vital statistics is in force throughout Lower Burma, except in the Salween District of the Tenasserim Division and the Northern Arakan District of the Arakan Division. In Upper Burma, it has not yet been introduced into the Bhamo, Ruby Mines, Katha, Myitkyina and Upper Chindwin Districts. The Shan States and Chin Hills are also excluded from registration. The number of births in the area under registration was 307,941 in 1910, as against 306,807 in 1909, showing an increase of 1,134, and the rate was 36·04 *per mille*, as against 35·91 in 1909. In Upper Burma the statistics are unreliable, and the percentage of error found at verification is high, many births remaining unrecorded. The birth-rate for the Province is 7·91 *per mille* above the death-rate, exceeding the latter in no less than 27 districts out of thirty. There are, for the Province, 106 males born to every hundred females. No relation can be traced between the birth-rate and the course of prices.

The death-rate from all causes was 28·13, as compared with 30·18 in 1909. The decrease of 2·05 can be accounted for by the year being exceptionally free from cholera, the mortality from this cause having been ·24 *per mille*, as compared with 1·33 in 1909, and by the deaths from dysentery and diarrhœa exhibiting a reduction of ·40 *per mille*. From the point of view of disease, the year was a favourable one.

The provincial mortality under one year of age, estimated on the number of births in the areas under registration, was 233·24 *per mille*, against 222·69 in 1909—an increase of 10·55. The urban mortality is persistently below the figures of last year, and it is therefore in the rural tracts that the mortality has increased. Epidemics of measles in the Myingyan and Pakôkku Districts caused the death of many children, and infantile mortality is undoubtedly extremely high, but the deduced figure is to a certain extent higher than the reality, since in many cases the death is recorded but not the birth, and it is on the figure of births that the mortality calculation is based. The chief actual causes of infantile mortality are want of trained midwives, bad nursing, and improper feeding.

Causes of death.

188. The recorded causes of death were as follows:—

	1910	1909
Cholera	2,011	11,389
Small-pox	1,817	1,011
Plague	7,741	6,946
Fevers	80,014	80,759
Dysentery and Diarrhœa	8,987	12,397
Respiratory diseases	6,913	7,779
Suicide	155	151
Wounding or accident	1,517	1,471
Snake bite or wild beasts	1,776	1,520
All other causes	129,428	134,439
Total ...	240,359	257,862

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

As already said, the year was remarkably free from cholera; deaths numbered 2,011 only, as compared with 11,389 in 1909, and the death-rate was ·24 as against 1·33. Small-pox caused 1,817 deaths, as compared with 1,011, the death-rates in the two years being respectively ·21 and ·12. Upper Burma was noticeably free from the disease. The highest mortality occurred in March and April, the lowest in October. The districts in Lower Burma which exceeded the quinquennial mean (·47), were Rangoon, 1·67, Myaungmya, ·70, Pegu, ·80 and Toungoo, ·60. In Upper Burma, Yamèthin had the highest mortality, with ·15.

Plague.

189. The number of deaths and the death-rate from plague were 7,741 and ·91, as against 6,946 and ·81 in the previous year, showing an increase of 795, or ·10. The increase occurred entirely in rural areas, particularly in Upper Burma, and was due to the extension of the disease in the Sagaing Division during the opening months of the year and its introduction into rural areas previously uninfected. For the Province, the months showing the highest mortality are March, followed by February, April, January and December. The lowest death-rates are reported in September. All the districts in Burma were affected with plague except Akyab, Kyaukpyu and Sandoway in the Arakan Division, Tavoy and Mergui in the Tenasserim Division, and Pakôkku, Minbu and Magwe in the Magwe Division (Magwe showed only two imported cases). The only districts newly infected were Ma-ubin and Myingyan. Nineteen towns in Lower Burma recorded a higher death-rate than the provincial urban average, 5·54.

The preventive measures carried out in the 1909-10 plague season were earth-oiling, disinfection, evacuation, inoculation, the destruction of rats by (*a*) poisoning with the Danysz virus, (*b*) trapping, (*c*) driving, and building rat-proof houses and rendering houses amenable to ratting. In the Pegu Division, trapping is carried out in a systematised manner. A town is divided up into mapped trapping squares, each containing approximately two thousand inhabitants, and in each of these squares one hundred traps are employed. The traps are moved round the square, each trap remaining in a house for three days. The number of rats caught is marked on the maps which form the basis on which the work is carried out. Driving was conducted by surrounding the house with wire netting, opening up the corners which shelter rats between the wooden sides of the house and the circular supporting pillars of the roof, the removal of one foot of the ceiling where it was in juxtaposition with the walls, or of the whole ceiling if necessary, and taking up wooden floors. The furniture and household effects were removed and the place thoroughly searched. Rat holes were excavated, or smoke was blown into them, effectually killing the rats. The effect of such a drive is to produce a rapid decline in the rat population, and reproduction to the normal strength is retarded for some months. In April 1910 the effect of these methods was considered, and the following measures were advocated:—(1) Evacuation of small towns and villages and of larger riverine towns, near which the existence of extensive areas of sand render the measure easy of adoption. The towns in which this was successfully accomplished were Magwe, Katha and, to a certain extent, Myingyan; (2) Inoculation of those who would accept it, particularly of plague establishments, and of persons in infected areas who were unwilling to migrate; (3) The systematic trapping of rats, which was in smaller towns such as Paungdè successful in preventing an outbreak, but in large towns like Prome had no appreciable result; and (4) the destruction of rats by means of driving. The attempt to build rat-proof houses, earth-oiling, and disinfection were condemned. The total number of rats killed in the Province during 1910 was 1,659,398. Unfortunately it is impossible to obtain any reliable statistical data establishing the result of these measures, for many cases of death from plague are undoubtedly concealed and the disease itself is subject to marked periodicity. Comparison of the mortality among persons inoculated against plague with the mortality among the non-inoculated is also subject to great possibility of error, as a large proportion of the latter fly from the infected area. The number of inoculations performed was 37,505. The number of non-inoculated persons in the areas where inoculation was performed was 1,351,201. There were 48, or ·13 per cent., attacks, and 20 or ·05 per cent., deaths amongst the inoculated, compared with 5,132, or ·38 per cent., attacks and 4,886, or ·36 per cent., deaths amongst the non-inoculated.

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

Fevers.

190. The highest death-rate was recorded under the head of Fevers, but, at any rate in rural areas, every doubtful death is ascribed to this cause. Of the 80,014 deaths, 44,168 were males and 35,846 females, the rates being 10·12 and 8·58 *per mille*, respectively. The death-rates were 8·89 in Upper and 9·62 in Lower Burma, as against 9·47 and 9·44 in 1909, and 7·88 and 9·62, the quinquennial mean. To encourage the use of quinine as a prophylactic and remedy for malaria, one-grain and five-grain tablets were manufactured by the Central Jail, Rangoon. A full box containing ten five-grain tablets or fifty one-grain tablets was issued at a cost of one anna to the purchaser, or ten grains for one pice. Eight full boxes were made up into a packet containing four hundred grains, and these packets were issued at a cost of four annas each to the licensed distributing agents, who were authorised to sell each packet for six annas. The agency of distribution was the local Treasury, and, through it, the Post Offices and licensed vendors. There was a large increase in the sale. The number of tablets issued was 3,498,000 five-grain tablets, in 43,725 packets, and 8,578,400 one-grain tablets, in 21,446 packets. Of these, 19,699 packets, or 1,575,920 five-grain doses, and 9,510 packets, or 3,804,000 one-grain doses, were disposed of by Treasuries.

Emigration and Immigration.

191. The number of immigrants recorded at the ports of Rangoon, Moulmein, Kyaukpyu, Tavoy, Mergui and Akyab was 331,170, as compared with 284,314 in 1909, when no statistics were available for Akyab. In the year of report 36,623 immigrants landed at Akyab, and this number, if the two years were commensurate, would bring the 1909 total to 320,937, and imply an increase of 10,233 immigrants in 1910. No record of immigration or emigration is maintained at the port of Bassein. The number of emigrants who left the named ports during the year (with the exception of Kyaukpyu, which has not furnished returns) was 298,613 as against 301,930 in 1909.

Medical Relief.

Hospitals and Dispensaries.

192. Nine new institutions were opened during 1910, bringing the total number of hospitals and dispensaries to 259. A new General Hospital was opened at Rangoon and marked a memorable event in the history of the medical administration of the Province, for the edifice is one of the finest in the East.

Attendance and treatment.

193. There was an increase in the total number of patients treated at hospitals and dispensaries coming under the cognizance of Government, from 1,420,473 in 1909 to 1,550,703 in the year of report. The daily average attendance of women for in-door treatment showed only a small increase during the triennial period ending with 1910, and the figure for that year was appreciably below the figure of 1909, but there was a steady increase in the number of female out-door patients, notwithstanding the fact that the out-door department of the Dufferin Maternity Hospital at Rangoon was closed for a greater part of the year. The Burmese population contributed 53 per cent. of the total number of patients treated at hospitals and dispensaries.

The classification of the principal diseases was revised and brought into conformity with that of the 4th Edition of the *Nomenclature of Diseases*, 1906. The chief diseases treated were malaria, diseases of the eye, diseases of the digestive system, and ulcers and other diseases of the skin. The number of cases of small-pox treated rose from 342 to 1,135, owing to a severe epidemic in Rangoon. Cases of cholera treated fell from 905 to 219. As usual, malaria contributed the largest number of patients, the number increasing from 169,695 to 177,781. The amount of malarial fever coming under treatment in Rangoon is noticeably small. Cases in which disease of the eye was treated increased by 5,453 in 1909, and by no less than 14,484 in the year of report. In Rangoon, thirty-three per cent. more cases were treated than in the preceding year. In Mandalay, a well equipped eye-hospital was

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

erected by private charity. The number of operations of all kinds increased from 37,670 to 40,470. Major operations numbered 995, as compared with 921 in 1909 and 780 in 1908. There were 693 lepers treated as in-door patients in different asylums in the Province, as against 757 in 1909. A large ward for girl-lepers was provided at the English Wesleyan Mission Home for Lepers in Mandalay. The Nastin treatment was unfavourably reported on by all the Superintendents of Leper Asylums.

General.

194. Medical expenditure under all heads amounted to Rs. 13,71,774, an increase of Rs. 33,000 over the figure of 1909. Among causes contributing to the increase may be mentioned the equipment of the new General Hospital at Rangoon, the increase in the number of hospitals and dispensaries and in the number of patients treated, and promotion of Medical Officers and subordinates. The only heading which disclosed a large decrease was *Buildings and repairs*, and this was due to the approaching completion of the Rangoon Hospital. The income of hospitals and dispensaries was Rs. 14,23,615, or some Rs. 28,000 more than in the preceding year. Contributions from Government amounted to 48·81 per cent., and from Local Funds and Municipalities to 45·49 per cent., of the gross income.

The cadre of the Indian Medical Service, and the number of Uncovenanted Medical Officers and Military and Civil Assistant Surgeons in independent charge of Civil Stations, remained the same throughout the year. Two appointments of Civil Assistant Surgeon were added. Four appointments of Sub-Assistant Surgeon were abolished and the cadre was nineteen short of strength at the close of the year. The service continues to be unpopular in the Province. Detailed proposals fixing a provincial scale of pay received the approval and sanction of the Government of India after the close of the year.

Steady progress was made at the Laboratory attached to the General Hospital, Rangoon, both in the direction of regular bacteriological investigation and in that of *post mortem* examination, the number of such examinations reaching the high figure of 675. Bacteriological work was also performed at the General Hospital, Mandalay.

Ten midwives have been passed out of the Dufferin Hospital under the "Results-system Midwives" scheme, and nine more students are under training. The details of the scheme for the training annually in sick nursing of ten Burmese and Karen women at the General Hospital, Rangoon, were approved by Government, and its introduction awaits the allotment of funds. The number of students at the Government Medical School at the end of 1910 was 29, against 28 at the end of the previous year. This number excludes the first contingent of ten final-year students, who have passed their qualifying examination.

Lunatic Asylums.

195. The number of patients in the Rangoon and Minbu Asylums rose from 623 to 641. Accommodation at the Rangoon Asylum was again increased by the erection of additional buildings, and over-crowding was also relieved by the transfer of twelve female lunatics to India and 25 harmless criminal lunatics to Minbu. The health of the inmates was on the whole good; the rate of mortality fell, and there was no outbreak of epidemic disease. The figure of daily average sickness rose, but was almost compensated by an increase in the percentage of patients cured. It is hoped to obtain shortly an improved water-supply for the Rangoon Asylum. The water filtration gallery and distribution system at Minbu worked efficiently during the year.

Sanitation.

Principal works and expenditure.

196. More than 45½ lakhs, or 29·80 per cent. of a total income of nearly 143 lakhs, was expended in 1910 by urban and rural authorities on sanitary works; of the aggregate percentage, 8·22 was spent on water-supply; 3·40 on drainage; 8·72 on conservancy: and 9·46 on other sanitary works. Of the total amount, 45·70 per cent. was obtained from Municipal Funds, and 26·83 from funds of non-Municipal towns, while 5·66 per cent. of the income of the District Cess Funds was expended on improvements in rural areas. A scheme

to supply water to the town of Minbu from an infiltration well, at an estimated cost of Rs. 35,698, has been sanctioned, and funds have been allotted by Government. Schemes of water-supply for the towns of Pegu, Mandalay, Meiktila and Yamèthin, estimated to cost Rs. 3,16,833, Rs. 12,94,804, Rs. 20,054 and Rs. 91,793, respectively, have been prepared and submitted for sanction. Surveys in connection with the supply of water to Pyinmana and Yandoon were completed during the year, and the projects are under preparation. Proposals for supplying Ma-ubin and Thazi towns are under consideration, and preliminary estimates have been prepared and are being examined. An estimate for the installation of Jewel filters and other appliances at Maymyo was prepared and submitted. Tube wells were sunk during the year at Paungdè, Gyobingauk, Zigôn, Thazi, Magwe, Shwegu in the Bhamo District, and in three villages in the Katha District.

The main objects of the sanitary works, other than large water-supply and drainage schemes, carried out during the year were—

(*a*) Reclamation, in which the employment of a dredger to raise the level of low-lying delta regions is the most striking feature.

(*b*) Increasing the number of tube and Abyssinian wells.

(*c*) Increasing the number of ponds with a protected drainage area, for the supply of drinking water to small towns and villages.

(*d*) Improving markets, insanitary dwellings, and the drainage in the larger towns.

The reclamation of the site of Pyapôn town by means of the dredger "Frederick Fryer" is note-worthy, as the town is rising from a low water-logged area to a level capable of drainage and advanced sanitation. During the year, 77 acres were reclaimed in Rangoon Town, 57 acres in East Rangoon and twenty in West Rangoon, but the financial position of the Town Lands Reclamation Fund is weak, and it has been found necessary to curtail expenditure on works. Under the Prome House-Improvement scheme, twenty-five houses were rebuilt, and 72 equipped with new roofs, plinths, floors, etc., the whole expenditure being met from Provincial Funds. Improvement of the drainage was undertaken at Henzada, Bassein and Mandalay and the remodelling of markets at Mandalay, Pyinmana and at Thôngwa in the Hanthawaddy District. Improvements were effected by opening up spaces in the Civil Station at Akyab, and a sum of Rs. 20,927 was paid as compensation to owners for the removal of congested dwelling-houses. The septic tank at Maymyo was remodelled at a cost of Rs. 8,300. Sluice gates were constructed at Kyaukpyu for the purpose of flooding with sea-water the areas most infested with mosquitoes.

A meeting of the Sanitary Board was held, and the following business transacted:—

(1) Approval was given to a scheme for supplying Kyaiklat with water.

(2) Objections were raised to a water-supply scheme for Kyaukpadaung.

(3) Details of the laying-out of the site of the proposed new Railway Town of Gamônseik were settled.

Vaccination.

Vaccination.

197. The area under vaccination remained unaltered during the year 1910-11. There was an increase in the staff of one Native Superintendent of Vaccination and two Vaccinators. The number of vaccinations performed in the Province was—Primary, 347,513, Re-vaccination, 47,380, as compared with 348,141 and 47,303 in 1909-10. The average number of vaccinations performed by each vaccinator declined to 1,466, as compared with 1,475 in 1909-10. The district in which the highest number of operations was recorded was Amherst, where 32,726 cases were vaccinated, an increase of 10,246 over the previous year's figure. The next highest was Rangoon, with 31,202 cases, an increase of 2,010 cases. The Southern Shan States recorded 20,631 vaccinations, an improvement of 4,888 cases. These large increases were, however, exceptional, and out of forty districts 21 show a decrease when compared with the returns of 1909-10. The district in which the largest decline

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

was recorded is Pakôkku, where the vaccinations performed were 7,408 fewer. Mandalay follows, with a reduction of 6,402 cases; and Sagaing, Thayetmyo and Tavoy show markedly fewer vaccinations than in the preceding year. The number and percentage of successful primary vaccination cases in which the results were known was 317,766 and 95·50, as compared with 319,001 and 95·27 in 1909-10. The percentage of successful re-vaccinations was 67·81, as against 61·58 in 1909-10. In Lower Burma, the percentage of protection to the total number of infants available was 24·31, as compared with 25·71 in 1909-10. In Upper Burma the percentage was 48·30, a figure largely in excess of the Lower Burma average. The proportion *per mille* of the population successfully vaccinated was 28·26, as compared with 32·66 in 1909-10. The figures of 1910-11 are, however, based on the 1911 Census; if the proportion had been based on the 1901 Census, the figure of protection *per mille* would have been 32·52. The number of successful vaccinations in Municipalities was 32,308, as against 44,057 in 1909-10. The percentage of success to the number vaccinated was 96·13 in primary cases, and 58·35 in re-vaccination. A satisfactory degree of protection is afforded in about 24 out of 47 towns in which the Vaccination Act is in force. In Prome, Paungdè, Kyaukpyu, Nyaunglèbin and Bhamo, less than half the number of available children have been vaccinated. In several towns the returns show on the other hand more children vaccinated than the number available for vaccination. The number of vaccinations performed by Medical Subordinates at dispensaries was 18,133, as compared with 12,261 in 1909-10 and 14,087 in 1908-09, showing a considerable increase during the year. The percentage of verified primary successes was 95·73 in 1910-11, as contrasted with 94·82 in 1909-10 and 94·24 in 1908-09. Verification by Civil Surgeons rose slightly, the percentage of inspection to the total number vaccinated in primary cases being 10·69, as compared with 10·42 in 1909-10. The inspection work performed by Native Superintendents of Vaccination has increased during the past three years: the percentage of inspection to the total number vaccinated rose to 53·06 (primary) in the year of report, against 50·96 in 1909-10.

General.

198. There are now three Vaccine Depôts in Burma, at Meiktila, at Rangoon, and at Loi-mwe. The last-named Depôt was opened during 1910-11. During the year, three Native Superintendents of Vaccination, 116 District Vaccinators, and 39 Apprentice Vaccinators underwent training at the Meiktila Depôt. The practice of inoculation is reported from many districts, and in Hanthawaddy, Myaungmya, Pegu, Ma-ubin and Pyapôn, outbreaks of small-pox were traced to the visits of inoculators. In the Ma-ubin District 82 deaths from small-pox were the result of inoculation. The expenditure on vaccination amounted to Rs. 1,93,279 in 1910-11, as compared with Rs. 1,80,784 in 1909-10 and Rs. 1,49,847 in 1908-09. The increase was due to growth in the numbers of the establishment, and to increments in the rates of pay, which rise with length of service. A sum of Rs. 1,22,875 was spent on establishment; Rs. 58,940 on travelling allowance; Rs. 11,464 on contingencies; and Rs. 17,810-8-1 on the Meiktila Vaccine Depôt (this figure including the pay of Apprentice Vaccinators sent to the Depôt for training). The portion of the total expenditure borne by Government amounted to Rs. 86,576, by Local Funds to Rs. 79,940, by Municipalities to Rs. 22,052, and by Native States to Rs. 4,711.

CHAPTER VII.

INSTRUCTION.

REFERENCES :—

Report on Public Instruction in Burma for the year 1910-11.
Statistics of British India, Parts VI and VII.

General System of Public Instruction.

This is described in paragraphs 209 to 242 of the *Report on the Administration of Burma* for the year 1907-08.

Education.

Educational measures.

199. Among the special incidents which marked the year 1910-11 were the creation of a limited number of permanent salary grants for teacher-managers in Vernacular schools, an investigation into the system of grants applicable to European and Anglo-Vernacular schools, the framing of regulations in connection with drill and calisthenics, the preparation of and receipt of general approval to a scheme for rebuilding the Government College at Rangoon, the transfer of the two Municipal schools at Ma-ubin and Myanaung to Government, the completion of the revision of the Code for European schools, the appointment of a Committee for the revision of vernacular readers, and consummation of the instructions of the Government of India regarding religious teaching in Government schools. The number of appointments in the Indian Educational Service was increased from thirteen to fifteen, by the creation of a Professorship of Physics and the transfer of the Professorship of English at the Government College from the Provincial to the Indian Educational Service. The Subordinate Educational Service was increased by the transfer of teachers from Municipal to Government schools, and by the creation of six Deputy Inspectorships. The last of the itinerant teachers left the Department on the 30th September 1910.

Public and Private schools, and general remarks.

200. Public schools are those which teach to a curriculum prescribed by Government or a University, and which are inspected by the Education Department. All other schools are Private. There was a decrease both in the number of Public schools and in the attendance, the decline being confined to Primary schools. Private institutions increased in number, but their attendance fell. The figures relating to these institutions cannot, however, be relied on, as the Department has no adequate means of collecting or verifying them. There are from sixteen to seventeen thousand such institutions in the Province, and a large majority of them (over 15,900) belong to the Buddhist monastic order. The decline in Public schools is confidently stated to be the result of the reduction of grants which has accompanied the financial stringency from which the Province is suffering. There was, however, an advance in the stages above the Primary. It is too early yet to judge of the value of the religious instruction now being imparted in some Public schools but, where such instruction is given by a *pôngyi*,* an improvement in the tone of the schools has been noticed. The number of hostels and the number of pupils attending hostels increased during the year. The want of hostel accommodation at the Government College was supplied, to some extent, by the opening of a branch in a private dwelling house in the neighbourhood. Physical drill was practised in more schools than in 1909-10, and new regulations have now been sanctioned the effect of which will be to make drill and calisthenics compulsory in certain standards of Anglo-Vernacular and European schools. Football continues to be the game most liked, but hockey is gaining in popularity.

* Buddhist monk.

CHAP. VII.—INSTRUCTION. Number of schools and scholars and expenditure.

201. In the year of report, the number of colleges and schools of all kinds—Private as well as Public—was 23,061, against 23,291 in 1909-10, and the attendance was 429,992 pupils, of whom 74,770 were girls, against 433,973, of whom 74,173 were girls, in the earlier year. The number of schools decreased by ·99 per cent. and the attendance by ·92 per cent. There were 6,562 Public institutions, with 259,161 pupils, and 16,499 Private institutions, with 170,831 pupils. The total expenditure on education was Rs. 43,62,581, as compared with Rs. 42,71,018 in 1909-10. Provincial Funds supplied 16¾, school fees 14½, and Local Funds and private sources 12½ lakhs of rupees towards the aggregate expenditure.

Primary education.

202. The term *Primary School* in Burma includes European, Anglo-Vernacular, and Vernacular schools which teach up to the Fourth standard and, for certain purposes, the Primary departments of Secondary schools. In Public Primary institutions there was a marked decline in the number of pupils which affected Vernacular schools of the Pegu, Magwe, Meiktila and Irrawaddy Civil Divisions, and of the Southern Shan States. The falling off was not, however, general, being confined to Primary schools proper: in Secondary Vernacular schools, both the Upper and Lower Primary standards showed increases and, even in Primary schools, the loss in the Upper Primary standards was slight: it was elementary Vernacular education that suffered. The figures were as follows:—

	1909-10.	1910-11.
Pupils in Primary schools	185,165	177,678
Pupils in the Primary departments of Secondary schools.	60,865	63,446
Total ...	246,030	241,114

The decline is attributed to various causes, the chief being the reduction of grants. The expenditure on Primary education for boys, including the cost of the Primary departments of Secondary schools, fell by more than three quarters of a lakh, to Rs. 15,44,058, against Rs. 16,24,222 in the previous year. Provincial Funds contributed nearly four lakhs, District Cess and Municipal Funds three-and-a-quarter and one and a half lakhs respectively, and 6¾ lakhs came from fees and other sources. The total cost of Primary education, for both boys or girls, and inclusive of figures for the Primary departments of Secondary schools, approached eighteen lakhs.

Secondary education.

203. All schools possessing a standard above the Fourth are designated *Secondary*, and Secondary institutions fall into three classes—European, Anglo-Vernacular and Vernacular. Schools for Europeans and for girls are discussed in separate paragraphs *infra*. The number of Anglo-Vernacular Secondary boys' schools rose in the year from 97 to one hundred, and the attendance from 20,437 to 20,666. These figures include Secondary schools with Primary departments. The growth in attendance accrued in the High and Middle standards, a slight decrease appearing in the Primary stage. In schools of this kind, 3·6 per cent. of the scholars were in the High stage, 34·2 per cent. in the Middle, forty per cent. in the Upper Primary and 22·2 per cent. in the Lower Primary stage. Of the hundred schools, 22 are High and 78 Middle schools.

Vernacular Secondary schools rose in number from 650, with an attendance of 45,622, to 684, with 48,049 pupils. Of the 684 schools, only eleven are High Schools. Of the pupils attending Vernacular Secondary schools, forty-one belonged to the High stage, 11·2 per cent. were in the Middle, 22·7 per cent. in the Upper Primary and 66 per cent. in the Lower Primary stage.

The results of examination in Secondary schools were as follows:—

Examination.	Number presented.	Number passed.
Anglo-Vernacular High School Final	64	27
Calcutta University Matriculation	138	93
Anglo-Vernacular Seventh Standard	1,523	734
Vernacular Ninth Standard	5	3
Vernacular Seventh Standard	1,760	306

The expenditure on Secondary education rose from 17·76 to 18·29 lakhs of rupees, and of this amount 5½ lakhs came from Provincial Funds, eight lakhs from fees, and the remainder from Municipal and District Cess Funds and from other sources. CHAP. VII.—INSTRUCTION.

Collegiate education.

204. Collegiate Education continued to expand. At the Government College at Rangoon the average monthly number on the rolls rose from 220 to 268: at the Baptist College at Rangoon the average number was 44, with a total enrolment of 55. The large majority of the students are Burmese. They take up chiefly English, Mathematics, Pâli and Chemistry, and a beginning has been made with Logic and Philosophy. A certain number of Normal school students take the Arts Course in the Government College, in addition to their own course at the Government Normal school. In the Law classes attached to the Government College, three students succeeded in passing either the Preliminary or the Final examination for the degree of Bachelor of Laws (Calcutta): they were, however, natives of India, and the Professor considers the Calcutta University courses in Law ill-adapted to the needs of Burmese students. In other University examinations Burmese students did creditably, especially in Pâli. At the Medical College, Calcutta, a Burmese lady-student qualified as Licentiate in Medicine and Surgery. At the Intermediate Arts Examination, 54 candidates passed out of one hundred presented, the percentage being higher than in the previous year, when 39 out of eighty candidates succeeded. At the examination for the degree of Bachelor of Arts, thirteen out of 23 candidates were successful, against eight out of twelve candidates in 1909-10. Of the candidates who passed this examination, one obtained second-class Honours in English, and three second-class Honours in Pâli. Among other students, there are nine Burma Government Scholars in the Medical College, Calcutta; thirty-four are preparing for work in Burma at the Royapuram Medical School, Madras; and forty-four, of whom thirty receive Government stipends, are at the Rangoon Medical School. The expenditure on Collegiate education increased from approximately one lakh to Rs. 1,15,459. Of this total, Provincial Revenues contributed more than half a lakh, and the remainder came from fees and other sources.

Technical education.

205. The number attending the Government School of Engineering again decreased, and it is evident that the school is not popular with Burmans, who are little attracted by the conditions of service and emoluments offered by the Public Works Department. When, however, the effects of the recent reorganization are felt, and the three classes of the three years of the Technical High School are fully constituted, it is hoped that the numbers will rise. Steps have been taken to reduce the number of Indian students: out of forty-five students in the school in 1910-11 thirty-three were Indians.

The number of pupils in the Apprentice classes of the Reformatory and other Industrial schools rose slightly. Marked improvement was shown in the number who took up Drawing. The numbers taking up needlework also advanced. The number of Survey schools, nineteen, remained unaltered, but there were 56 pupils fewer than in 1909-10. The decrease has been noticed in Chapter II above, *vide* the section headed *Land Records*. The technical subjects taught during the year were drawing, music, weaving, lace-making, Slöjd, needlework, clay modelling, printing, book-binding, carpentry, cane work, tin-smith's work, shoe-making, hygiene, science, cutting-out, cooking and dress-making. Of the schemes discussed at the Conference on Technical Education held in November 1909, only that relating to the introduction of manual training in selected schools has been definitely approved.

Training schools.

206. The Province possesses twelve Normal schools. Five Normal schools for men are under Government: of these, two comprise both Anglo-Vernacular and Vernacular departments: one is Anglo-Vernacular: and two are Vernacular only. Three similar schools are under Missionary control. All the Normal schools for women, four in number, belong to Missions; of these, two are Anglo-Vernacular, one is Vernacular, and one is both Anglo-Vernacular and Vernacular. Some

CHAP. VII.—INSTRUCTION.

women students attend the Normal schools for men. At the Normal schools for men, the number in attendance in the year of report receded. The attendance at the women's schools rose, but not sufficiently to compensate for the decline in the men's schools. The total number of students of both sexes was 375, as against 404 in 1909-10. The percentage of successes to presentations at the annual examination in Theory rose, for Normal school students, from 68 to eighty. In the case of outside candidates, it rose from eight to 47 per cent, a remarkable improvement. The number of trained or certificated teachers in the Province now numbers 2,440, comprising 1,473 teachers with a Vernacular, 866 with an Anglo-Vernacular, and 101 with an European qualification. In addition, there are 224 pupil-teachers in Vernacular schools. The expenditure on Normal schools in 1910-11 was Rs. 1,60,471, as compared with Rs 1,51,288 in the previous year. Provincial Funds contributed nine-tenths of the expenditure.

European schools.

207. The total number of European students rose from 3,680 to 3,885, of whom 417 attend schools for non-Europeans. Boys numbered 2,020, and girls 1,865. The figures of attendance in Arts Colleges, Secondary schools and Training schools increased: in Primary schools there was a small decrease. The majority of pupils are centred at Rangoon, Mandalay, Moulmein and Maymyo. The new curriculum sanctioned in 1909 is being gradually introduced: the High School examination was still held under the old course, but the Middle and Primary departments and Standard VIII took the revised course. The total outlay, exclusive of boarding fees, on European Education was Rs. 3,89,939, or some three thousand rupees less than in 1909-10. Of this expenditure Government provided a little less than one-half. The following table shows the results of the annual examinations:—

Examination.	PRESENTED.		PASSED.	
	Boys.	Girls.	Boys.	Girls.
European High School	20	24	14	19
European Middle School (Standard VII) ...	82	104	64	69
European Primary (Standard IV)	200	180	147	171

Education of special classes.

208. The number of Mahomedans under instruction increased from 12,981 to 14,729. About two-thirds of the number attended Public institutions, and nearly one-half were in the Primary stage. There was a slight decrease in the attendance at Colleges and Anglo-Vernacular Secondary schools, the numbers falling from 330 to 302. There are two Anglo-Vernacular schools in Rangoon, and one in Akyab. Elementary unregistered Koran Schools increased by twelve, adding 728 pupils to the figures of the preceding year for these schools. The number of Mahomedan girls under instruction in Public institutions rose from 1,422 to 1,729 and in Private schools from 1,059 to 1,231. The attendance in Public institutions for other special classes increased by 1,100 pupils, chiefly in the categories of Karen, Shan and Chin Vernacular Public schools under private management. The Taungthus fell back, as regards both the number of schools and pupils. Karens exceed any other community in numbers, and Christian converts, among whom are many girls, probably constitute a large majority of the scholars.

Female education.

209. The number of girls attending Public institutions rose from 70,106 to 71,032. The main increase occurred in Secondary schools, Primary schools as such and Special schools both showing a decrease. In addition, 3,738 girls attended Private schools. As was the case last year, the numbers attending girls' schools fell, while the number of girls in boys' schools rose, seventy-five per cent. of the total number attending boys' schools. The distribution of girls over the different stages was: Collegiate stage seventeen, High 99, Middle 1,332, and Primary

69,140. The remaining 444 girls belonged to Training and Special schools. The expenditure on Vernacular schools for girls was Rs. 1,27,985, and on English (European and Anglo-Vernacular) schools for girls Rs. 2,47,151. As in the previous year, twelve per cent. of the total direct expenditure from public funds was devoted to girls' schools. CHAP. VII.—INSTRUCTION.

210. The number of boys in the Reformatory stood at 105, as compared with 86 in 1909-10. Sixty-four were Buddhists, fourteen Hindus, sixteen Mahomedans, and eleven were of other races. At the annual examinations, 77 out of 84 passed in the literary subjects, and 53 out of 55 in the technical courses, which comprise carpentry, tin-smith's work, cobbling and canework. The net expenditure on the Reformatory was Rs. 15,042, as compared with Rs. 13,551 in the preceding year. Insein Reformatory School.

Literature and the Press.

211. The total number of publications (including 23 re-publications and three new editions) registered during the calendar year 1910 was 373, a number which shows a much larger increase than any recorded previously. In 1907 the figure stood at 171; in 1908, at 221; in 1909, at 246. The advance of over one hundred in the year of report was chiefly due to an increase of 41 in the number of dramatic works registered, and the number of religious publications also rose considerably. The number of publications written in Burmese rose from one hundred to 227, and in English from fifteen to 23: publications written in Pâli and Burmese (75) and in Pâli (twenty) declined. Works were classified according to subject-matter among fifteen heads during the year, and the classification was more accurate than in previous years. Politics play no part in the literature of the Province and the literary output was not affected by the Press Act, which came into force in the early part of the year. The increase in dramatic publications is noteworthy: the average number of copies to an edition may be taken as three thousand, and there were therefore some 180,000 copies of dramas disseminated through Burma from various presses during the year. The plays—which bear many curious resemblances to the mediæval Mystery, especially in the juxtaposition of sublime and vulgar—are interspersed with indecencies, often of a gross kind, and the Departmental report expresses apprehension lest corruption of the mind of the Burmese may not accompany this broadcasting of doubtful literature. Two works of fiction appeared, one of which was a novel written in Burmese but drawn up on more or less occidental lines. Under the heading of *Language* appear the usual Pâli and Burmese works on Pâli Vocabulary and Grammar, and there were also published several translations and 'Keys' to educational works. Of legal publications appeared among other works an English treatise on Buddhist Law from the pen of a Burmese author, and an edition of the Code of Civil Procedure, by Burmese joint-authors. Among miscellaneous works, there were published a Burmese Manual of Shorthand, a Burmese translation of the *Citizen of India*, and 'The Euro-Asian,' a book published under the auspices of the Anglo-Indian Empire League. Seven books appear under the sub-head *Poetry*, and this small category comprises works in Burmese, Arabic, Urdu, and a volume of occasional verse in English. About two-fifths of the publications were classified as religious works, the great majority being written in Burmese or Pâli, or both. The name of the Lèdi *Sayadaw*, prominent in the past, does not appear in the year of report. A discourse—in English—on Diligence by Silicara Bhikku is a somewhat unusual feature in the list of religious works. *Science* comprised a manual of hygiene and some Burmese text-books of mathematics and geography. Under the heading *Art* fall ten books of Burmese designs, graduated for the use of Standards I—X in all schools where Drawing is taught. Publications registered.

212. Excluding the Government Central Press at Rangoon—which issues periodically four Official Gazettes, the proceedings of the Local Government, the official Civil List, the History of Services of the officers of Government in Civil employment, this annual *Report of the Administration of Burma* and various Presses, newspapers and periodicals.

CHAP. VII.—INSTRUCTION.

Departmental reports and commercial publications—the Jail Branch Press at Rangoon, and the Government Branch Press at Maymyo, there were in 1910-11 102 presses at work in the Province, against 88 in the preceding year. Rangoon reported forty—an increase of seven—the Mandalay District 25, and the Amherst District eight presses, two of the eight being new undertakings. Except in Mandalay Town, the number of presses in the Upper Province is small, the Shwebo, Thayetmyo and Pakôkku Districts alone containing presses.

The returns continue to draw no clear line between newspapers and periodicals. For the Province the number of newspapers reported is 45, and of periodicals eighteen. Of the newspapers, 26 are either published in English or are bilingual, English being one of the languages, eleven are published in Burmese, and five in Karen. Six newspapers are issued daily, five of the six appearing in Rangoon and one in Mandalay: five triweekly: and eight appear twice in the week. The most important daily newspapers are the *Rangoon Gazette* and the *Rangoon Times*.

Literary Societies

An account of some of these is given in paragraphs 487 to 489 of the *Report on the Administration of Burma* for the year 1901-02, and in paragraph 282 of the Report for the year 1904-05.

Rangoon Societies.

213. During the year 1910-11 the *Rangoon Literary Society* slightly increased its membership and income and added to its library. The *Rangoon Teachers' Association*, besides adding to its library, provided lectures and evening classes in various subjects and the number of visitors increased. The *Bernard Free Library* had a less active year. There were in all 17,712 visitors, a decline of more than a thousand from the figure of the previous year. The number of borrowers at the end of the year was 1,070; there were 286 admissions and 207 removals of names. More volumes were lent out than in the previous year and steps continued to be taken to preserve and copy old and worn out Talaing manuscripts. The closing balance of the Library Fund declined by Rs. 1,700, to Rs. 4,500. The *Chinese Empire Reformation Association*, one of the objects of the foundation of which is said to have been the promotion of literature, appears to have directed its activities in part into political channels during the year. Revised rules for the *Bar Library* came into effect and the number of members steadily increases. The membership of the *Rangoon Pleaders' Association* fell. The *Buddhist Propaganda Society* increased its membership from 1,210 to 1,684, and continued to maintain Buddhist monks for the purpose of preaching, and to issue a journal devoted to the inculcation of Buddhist doctrine. It has received permission from Government and from some Municipalities to impart religious instructions in schools. *The Young Men's Buddhist Association* established many affiliated societies under the same name, these now numbering fifteen, and its membership increased.

Arts and Sciences.

214. The condition of financial stringency persisted, and the proposal to appoint an expert as Provincial Art Officer was not revived. The Provincial Art and Handicrafts Exhibition was held in December 1910 at Rangoon, and another exhibition on the same lines was held in the preceding month at Bassein, where prizes were offered for silver work, wood-carving, umbrellas and pottery. The Provincial Exhibition attracted many entries, both from Rangoon and other parts of the Province, the class for workers from the Shan States filling for the first time. The silver work was again good, but the best class in the exhibition was probably that for metal statuette makers, in which the subject was a buffalo led or pulled along by a ploughman. The ivory carving was not as good as usual. Wood-carving showed considerable improvement, the figures of animals chosen as the

subject for competition arousing keen interest among the carvers. The lacquer work was good and, as in 1909, prizes were offered to goldsmiths for jewelry. The quality of the exhibits as a whole was well up to the standard of former years, and the exhibition was a successful one.

Among the industries partaking of an artistic nature which are mentioned in the reports for 1910-11 may be noted the making of large pots at Twante in the Hanthawaddy District: these are glazed with a mixture of rice-water and galena, and the art was represented at the Agri-Horticultural Society's Exhibition held in January 1911: mat-weaving, in the Ma-ubin and Hanthawaddy Districts: wood-carving, in Amarapura and the suburbs of Mandalay, and—of the heavier orders—in the Henzada District: silver-work in Rangoon, and in the Thayetmyo, Pegu, and Mandalay Districts: lacquer work, at Nyaung-u and Pagan in the Myingyan District: two medals were obtained by workers from this district for work shown at the Allahabad Exhibition, and an attempt is being made to form a local Art Committee in order to foster the industry: silk-weaving, in parts of the Henzada District: and bronze work in the Pegu District. These arts are, however, found in other districts than those mentioned, and there are other arts and art centres which are not noticed in the reports. Some of these have been dealt with in the series of Industrial Monographs; others have been briefly mentioned in the section headed *Manufactures* in Chapter IV *supra*.

CHAPTER VIII.

ARCHÆOLOGY.

REFERENCE :—

Report of the Superintendent, Archæological Survey, Burma, for the year 1910-11.

215. Little progress was made during the year in the preparation of the classified lists of the more important monuments of antiquarian or archæological interest in the Province. The Kuthodaw pagoda at Mandalay, the tomb of King Mindôn's mother at Amarapura, and four pagodas in the Tagaung Township of the Ruby Mines District were protected by notification under the Ancient Monuments Preservation Act. The removal of sculptures and other objects of antiquarian interest from the Wèbyan Cave at Pehinzeik in the Thatôn District, and from the Powindaung Caves at Minzu in the Lower Chindwin District, was forbidden by the issue of notifications under the same Act. The preparation of the plans and drawings in connection with the Architectural Survey of the Palace Buildings at Mandalay has been completed, and the letterpress only remains to be undertaken. The excavation of the prehistoric site of Yathemyo near Prome, continued: five funeral urns, of different shapes and patterns, and a terracotta plaque, all indicating vestiges of a Siva cult, were discovered, besides two fragmentary records in the Pyu script incised on clay votive tablets. Impressions of the inscriptions were sent to England for examination by Mr. C. O. Blagden, who during the year deciphered the hitherto unknown Pyu script appearing on one of the four faces of the Myazedi Inscription—the Burmese face of which constitutes the earliest lithic record in the Burmese character as yet found in the Province—besides two Talaing inscriptions found at pagodas in Pagan and Prome. The Pyu language appears to be related both to Burmese and Talaing, and two words of Sanskrit origin appear in the inscription. The Government of India sanctioned a grant-in-aid of Rs. 10,000 during the year, and the expenditure on archæological works rose from Rs. 18,327 in 1909-10 to Rs. 42,071 in the year of report. Special repairs to the Thudama and Patan *zayats* (rest houses) at the foot of Mandalay Hill, and to the Sangyaung monastery at Mandalay; improvements to the Nanpaya and several pagodas at Pagan: and repairs to the Bawbawgyi pagoda at Hmawza in the Prome District, account for most of the increase. Two new proposals for conservation were made during the year; the first in respect of a pagoda erected in 1754 by Alaungpaya at Tagaung in the Ruby Mines District, where he received the submission of the *Sawbwa*, or Chief, of Möng Mit: the second related to a brick inscription-chamber on the south embankment of the Meiktila Lake, sheltering an inscribed stone set up by King Mindôn in 1856 to commemorate the repair of the embankment. The discovery of inscriptions in the Pyu language at Yathemyo has led to the inclusion of excavation in that region in the programme of the Department for 1911-12.

CHAPTER IX.

MISCELLANEOUS.

REFERENCES :—

Report of the Chemical Examiner and Bacteriologist to the Government of Burma for the year 1910.

Statistics of British India, Part VI.

Report on the working of the Office of the Superintendent, Government Printing, Burma, for the year ending the 31st March 1911.

Ecclesiastical Jurisdiction

The Ecclesiastical jurisdictions are described in paragraphs 492 and 493 of the *Report on the Administration of Burma* for the year 1901-02.

Ecclesiastical.

216. Three small District Churches were dedicated for worship—at Mergui, Thatôn and Mônywa. A sum of Rs. 12,000 was subscribed towards the cost of erecting a permanent consecrated church in the Civil Station at Maymyo. A further sum of Rs. 9,000, originally collected for a church which it was proposed to erect in Mandalay as a memorial to those who fell in the war in Upper Burma, was also, after public notice had been given, allotted to the new church, which thus becomes the Memorial Church for that purpose. It is stated that it is hoped soon to commence work on the church, the estimated cost of which is Rs. 70,000.

Stationery.

217. The bulk of the paper used for official purposes continued to be supplied by the Controller of Printing, Stationery and Stamps, Calcutta, from Indian mills. The cost of stationery supplied to General Departments and the Government Presses in Burma amounted to Rs. 99,631 and Rs. 2,53,597, respectively, an increase of Rs. 7,750 in the case of General Departments and a decrease of Rs. 5,893 in the case of Government Presses, as compared with the previous year.

Office of the Chemical Examiner and Bacteriologist.

218. The number of articles examined in the Medico-legal Department rose slightly, from 1,236 to 1,256. The number of examinations connected with blood-shed increased by 48, and the articles examined by 101. In the General Analytical Department, 23,947 articles were examined, an increase of 7,487 articles over the figure of 1909. The advance occurred chiefly under the headings Cocaine, Morphia, Opium and Other drugs. These figures, though they represent a mere fraction of the bulk of the drugs smuggled into Rangoon, indicate the extent and growth of the drug habit. The results of examination suggest that the practice of adulterating cocaine is increasing.

The number of specimens and articles examined bacteriologically was 770; the decrease of 142 from the figures of 1909 is ascribed to the fact that more examinations for the purpose of determining the presence or absence of the plague bacillus were conducted locally during the year of report. One event of considerable importance in the management of the public health of Rangoon was directly due to more accurate bacteriological diagnosis, namely, the detection of cases of glanders in the human subject. Three hundred and twenty-nine samples of water were examined, as against 363 in 1909; 105 were pronounced to be unfit for drinking purposes, and 120 to be of fair quality only.

Office of the Superintendent of Government Printing.

CHAP. IX.—MISCELLANEOUS.

219. The Government presses in the Province are the Central Press in Rangoon, the Jail Branch Press, which is housed in the Central Jail at Rangoon, and the Maymyo Branch Press, at Maymyo. The work which is carried out at these presses has been noticed in Chapter VII, *supra*, in the section entitled *Literature and the Press*. The receipts of the Press are small and arise chiefly from the sale of Acts, Gazettes and forms, and from printing work done for Municipalities. They amounted to a little over Rs. 35,000 in the year of report, a decrease of Rs. 2,000 from the figure of the preceding year. The expenditure of the three presses, exclusive of the value of convict labour employed, of the value of type manufactured within the walls, of depreciation of plant, and of pensionary charges, but including the remaining book adjustment, namely, the cost of stores obtained from England, amounted to Rs. 4,32,565, or more than Rs. 30,000 less than in 1909-10. Printing work to the value of Rs. 31,000 was given out to private presses, as compared with Rs. 21,000 in the preceding year. The value of the outturn of work from the Central Press was estimated at Rs. 1,39,000, from the Jail Branch at Rs. 1,21,000, and from the Maymyo Branch at Rs. 7,600, in all Rs. 2,67,600. The corresponding total figure for 1909-10 was Rs. 3,73,000, but the valuation in that year was conducted according to a different, and higher, schedule of rates. The value of the dead stock at the three Presses, exclusive of land and buildings, rose from Rs. 4,37,000 to Rs. 4,68,000. A new building for the Central Press is in process of construction, the existing accommodation having long been recognized as inadequate.

Printed by order of the Government of Burma.

S. B. C. P. O.—No. 838, Chief Secy., 9(a), 11-1-1912—635—F. X. deC.

REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR

1911—12

RANGOON

OFFICE OF THE SUPERINTENDENT, GOVERAMENT PTINTING, BURMA

1913

LIST OF AGENTS

FOR THE

SALE OF GOVERNMENT PUBLICATIONS.

IN INDIA:

THACKER, SPINK & Co., Calcutta and Simla.
W. NEWMAN & Co., Calcutta.
THACKER & Co., Bombay.
HIGGINBOTHAM & Co., MADRAS.
SUPERINTENDENT, AMERICAN BAPTIST MISSION PRESS, Rangoon.
* D. B. TARAPOREVALA & Sons & Co., 103, Meadow Street, Fort Bombay.
BUTTERWORTH & Co. (INDIA), LTD., 8-2, Hastings Street, Calcutta.

IN ENGLAND:

HENRY S. KING & Co., 65, Cornhill, E.C., London.
CONSTABLE & Co., 10, Orange Street, Leicester Square, W C.
KEGAN PAUL, TRENCH, TRUBNER & Co., 68—74, Carter Lane, E.C.
BERNARD QUARITCH, 11, Grafton Street, New Bond Street, W.
P. S. KING & SON, 2 & 4, Great Smith Street, Westminster, London, W.S
GRINDLAY & Co., 54, Parliament Street, S.W.
T. FISHER UNWIN, 1, Adelphi Terrace, London, W. C.
B. H. BLACKWELL, 50 & 51, Broad Street, Oxford
DEIGHTON BELL & Co., Cambridge.
W. THACKER & Co., 2, Creed Lane, London, E.C.
LUZAC & Co., 46, Great Russell Street, London, W.C.
OLIVER AND BOYD, Tweeddale Court, Edinburgh.
E. PONSONBY Limited, 116, Grafton Street, Dublin.

ON THE CONTINENT:

R. FRIEDLANDER & SOHN, 11, Carlstrasse, Berlin, Germany.
OTTO HARRASOWITZ, Leipzig, Germany.
KARL W. HIERSEMANN, Leipzig, Germany.
ERNEST LEROUX, 28, Rue Bonaparte, Paris, France.
MARTINUS NIJHOFF, The Hague, Holland.

For the sale of official publications excluding those of the Legislative Department of the Government of Burma

[The maximum length of the Summary is from 20 to 30 pages and of Part II (excluding the red-letter chapters) 150 pages.]

TABLE OF CONTENTS.

REPORT ON THE ADMINISTRATION OF BURMA FOR THE YEAR 1911-12.

PART I.

GENERAL SUMMARY.

	PARA.	PAGE
(1) The Administration; The Frontier States; and the People.		
Administration ...	1	i
The Shan States and Karenni ...	2	*ib.*
The Chin Hills ...	3	*ib.*
The North-Eastern Frontier ...	4	ii
Condition of the People ...	5	*ib.*
(2) The Administration of the Land.		
Realization of the Land Revenue ...	6	ii
Surveys ...	7	*ib.*
Settlements ...	8	*ib.*
Land Records ...	9	*ib.*
Transfers of land ...	10	iii
Waste lands ...	11	*ib.*
Revenue and rent-paying classes ...	12	*ib.*
(3) Protection.		
Legislation ...	13	iii
Police ...	14	iv
Village Administration ...	15	*ib.*
Criminal Justice ...	16	*ib.*
Prisons ...	17	*ib.*
Civil Justice ...	18	v.
Registration ...	19	*ib.*
Joint Stock Companies ...	20	*ib.*
Rangoon Municipality ...	21	*ib.*
Other Municipalities ...	22	*ib.*
Military ...	23	vi
Marine ...	24	*ib.*
Commercial Marine ...	25	*ib.*
(4) Production and Distribution.		
Agriculture ...	26	vi
Stock and Cattle Disease ...	27	vii
Weather and Crops ...	28	*ib.*
Outturn and Prices ...	29	*ib.*
Agricultural Loans ...	30	*ib.*
Co-operation ...	31	viii
Horticulture ...	32	*ib.*
Forests ...	33	*ib.*
Mines and Quarries ...	34	*ib.*
Manufactures and Factories ...	35	ix
Maritime Trade ...	36	*ib.*
Transfrontier Trade ...	37	*ib.*
Public Works—		
Roads and Buildings ...	38	*ib.*
Railways and Tramways ...	39	x
Irrigation and Canals ...	40	*ib.*

(5) Finance.

	PARA.	PAGE
Provincial Financial Settlement	41	x
Gross Revenue and Expenditure	42	xi
Land Revenue	43	*ib.*
Customs	44	*ib.*
Salt	45	*ib.*
Excise	46	xii
Stamps	47	*ib.*
Assessed Taxes	48	*ib.*
Provincial Revenue and Finance	49	xiii
Forests	50	*ib.*
Local Funds	51	*ib.*
Municipal Finance	52	*ib.*
Note circulation	53	xiv

(6) Vital Statistics and Medical Services.

Births and Deaths	54	xiv
Plague	55	*ib.*
Medical Relief	56	*ib.*
Sanitation	57	*ib.*
Vaccination	58	xv

(7) Instruction.

Education	59	xv
Literature and Presses	60	xvi
Arts and Sciences	61	*ib.*

(8) Archæology.

Archæology	62	xvi

PART II.

DEPARTMENTAL CHAPTERS.

CHAPTER I.

Physical and Political Geography.

PHYSICAL.

Physical Features of the Country, Area, Climate and Chief Staples

Area and boundaries	1	1
Natural divisions	2	2
Mountains	3	3
Rivers	4	*ib.*
Lakes	5	5
Soil	6	*ib.*
Climate	7	6
Staples	8	*ib.*

POLITICAL.

Historical Summary.

Early history	9	6
Early European settlements in Burma	10	7
Extensions of Burmese rule under the last Burmese dynasty	11	*ib.*
First Burmese War	12	8
Annexation of Assam, Arakan and Tenasserim	13	*ib.*
Second Burmese War	14	*ib.*
Accession of King Thibaw	15	*ib.*
Annexation of Upper Burma	16	9
Relations with Siam	17	*ib.*
Relations with China	18	10

Form of Administration.

Lieutenant-Governor and Council	19	11
Administrative Divisions—Shan States	20	*ib.*
Chin Hills	21	*ib.*
Upper Burma	22	12
Commissioners	23	*ib.*
Other Executive Officers	24	*ib.*
Village system	25	*ib.*
Revenue Administration	26	*ib.*

	PARA.	PAGE
Judicial Administration	27	13
Public Works	28	*ib.*
Police	29	*ib.*
Medical	30	*ib.*
Forests	31	14
Excise	32	*ib.*
Ports	33	*ib.*
Customs	34	*ib.*
Education	35	*ib.*
Ecclesiastical	36	*ib.*
Local Self-Government	37	*ib.*
Miscellaneous	38	*ib.*

Character of Land Tenures; System of Survey and Settlement.

Tenures of Land (Lower Burma).

Modes of acquiring ownership	39	15
Classes of landholders: Tenants	40	*ib.*
Town and village lands	41	16

Tenures of Land (Upper Burma).

Tenures of land	42	16
State land	43	*ib.*
Non-State land	44	17
Tenants	45	*ib.*
Town lands	46	18

General.

Tenure holdings	47	18

System of Survey and Settlement (Lower Burma).

Cadastral Survey	48	18
Supplementary Survey	49	*ib.*
System of Settlement	50	19
Assessment of fallow land	51	*ib.*
Remissions	52	20

System of Survey and Settlement (Upper Burma).

Survey	53	20
Settlement	54	*ib.*
Supplementary Survey	55	21

Civil Divisions of British Territory.

Number of divisions	56	21
Lower Burma	57	22
Arakan Division	58	*ib.*
Pegu Division	59	*ib.*
Irrawaddy Division	60	*ib.*
Tenasserim Division	61	*ib.*
Upper Burma	62	23
Mandalay Division	63	*ib.*
Sagaing Division	64	*ib.*
Magwe Division	65	*ib.*
Meiktila Division	66	24
Shan States	67	*ib.*
Chin Hills	68	*ib.*

Details of the last Census; Tribes and Languages.

Sphere and method of operations	69	24
General statistics	70	25
Towns and villages	71	*ib.*
Religions	72	26
Occupation	73	*ib.*
Indigenous races	74	27
Origin of indigenous races	75	28
Indigenous languages	76	29

Changes in the Administration.

The Lieutenant-Governor	77	30
Administrative territorial changes	78	*ib.*
Additions to and changes in the Administration Staff	79	*ib.*

Relations with Tributary States, and Frontier Affairs.

(i) Shan and Karenni States.

	PARA.	PAGE
The Southern Shan States	80	30
The Karenni States	81	31
The Northern Shan States	82	32
Other Shan States	83	33

(ii) The Chin Hills.

———	84	33

(iii) The Kachin Hills.

———	85	33

Condition of the People.

———	86	34

CHAPTER II.

ADMINISTRATION OF THE LAND.

Realization of the Revenue.

Demand, collections, remissions and outstandings	87	35
Revenue proceedings and coercive processes	88	*ib.*

Surveys.

Surveys by Imperial agency	89	36
Surveys by Provincial agency: Extension and Revision surveys	90	*ib.*
Town and Fishery surveys and surveys of leased areas	91	*ib.*

Settlements.

Progress of Settlements	92	36
Financial results and expenditure	93	37

Land Records.

Area under Supplementary Survey	94	37
Cost of Supplementary Survey	95	*ib.*
Training of Officers	96	*ib.*
Transfers of land	97	38

Waste lands.

Grants and leases for cultivation	98	38
Revenue-free grants of land and assignments of land revenue	99	*ib.*

Government Estates and Wards' Estates.

———	100	38

Revenue and Rent-paying Classes.

Area held by agriculturists	101	39
Tenancies	102	*ib.*

CHAPTER III.

PROTECTION.

Legislative Authority

The Original Council	103	48
The Present Council	104	*ib.*
Extent of powers	105	41
Further powers of Council	106	*ib.*

Course of Legislation.

Work of Legislative Council	107	41
General Acts affecting Burma	108	42
Regulations affecting Burma	109	*ib.*
Extension of Enactments to Shan States	110	*ib.*

Police.

	PARA.	PAGE
Civil Police: strength, recruitment and cost	111	43
Conduct, education and training	112	*ib.*
Buildings	113	*ib.*
Crime and the working of the Police	114	*ib.*
Important incidents	115	44
Offences under Special Acts	116	*ib.*
Non-cognizable crime	117	45
Preventive sections, surveillance and identification	118	*ib.*
Punitive Police	119	*ib.*
Railway Police	120	46
Military Police	121	*ib.*
Rangoon Town Police	122	*ib.*
Village administration	123	47
Wild animals and snakes	124	48

Criminal Justice.

General	125	48
Cases	126	*ib.*
Disposal of cases	127	49
Punishments	128	*ib.*
Appeals	129	50
Revisions	130	*ib.*

Prisons.

Accommodation	131	50
Prisoners	132	*ib.*
Discipline	133	51
Financial	134	*ib.*
Vital	135	*ib.*
Miscellaneous	136	*ib.*

Civil Justice.

Courts	137	52
Suits	138	*ib.*
Appeals	139	53
The Chief Court	140	*ib.*
The Court of the Judicial Commissioner, Upper Burma	141	54
General	142	*ib.*

Registration.

General	143	54
Deeds registered	144	*ib.*
Income and expenditure	145	*ib.*

Joint Stock Companies.

———	146	54

Local Boards Administration.

———	147	55

Municipal Administration.

Rangoon Municipality	148	55
Minor Municipalities	149	*ib.*

Military.

Strength of the garrison	150	56
Military works	151	*ib.*

Military (Volunteering).

———	152	57

Marine.

Light-houses and light-ships	153	57
Port Administration, Rangoon	154	58
Pilot Service, Rangoon	155	59
Minor ports	156	*ib.*
Commercial Marine: shipping	157	*ib.*
Commercial Marine: wrecks and casualties	158	60
Government steamers and launches	159	*ib.*
Marine works and surveys	160	61

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

Agriculture.

	PARA.	PAGE
Occupied and cultivated areas	161	62
Area irrigated	162	63
The Agricultural Department: General	163	*ib.*
Agricultural experiment and research	164	*ib.*
Veterinary Department: Staff and Veterinary Schools	165	64
Cattle disease	166	*ib.*
Stock	167	65
Agricultural loans	168	*ib.*
Protection from floods	169	*ib.*

Weather and Crops.

Character of the seasons	170	66
Outturns and prices	171	*ib.*

Co-operation.

Co-operative Rural Societies	172	67
Unions and Central Banks	173	*ib.*
Other Societies	174	68

Horticulture.

Agri-Horticultural Societies	175	68

Forests.

Forest reserves, operations of survey and settlement, and working-plans	176	68
Preservation of the forests	177	69
Improvement of the forests	178	*ib.*
Exploitation of teak and other woods	179	*ib.*
Finance	180	70

Mines and Quarries.

The Indian Mines Act	181	70
New concessions	182	*ib.*
Petroleum	183	*ib.*
Gold	184	71
Rubies	185	*ib.*
Other minerals	186	*ib.*
Quarry stones and clay	187	*ib.*
Revenue from mines and quarries	188	*ib.*

Manufactures.

Principal industries	189	72
Factories	190	*ib.*

Trade.

Maritime trade: total value and revenue	191	73
Rangoon trade: total figures	192	74
Rangoon trade: foreign imports	193	*ib.*
Rangoon trade: foreign exports	194	75
Rangoon trade: British share	195	76
Rangoon: coasting trade	196	77
Subordinate ports	197	*ib.*
Transfrontier trade: total trade	198	*ib.*
Western China	199	*ib.*
The Northern Shan States	200	78
The Southern Shan States	201	*ib.*
Siam and Karenni	202	*ib.*

Public Works.

Administrative and general	203	78

(*i*) *Roads and Buildings.*

Communications	204	79
Buildings—Imperial and Provincial	205	*ib.*
Miscellaneous public improvements and sanitary works	206	*ib.*

(ii) Railways and Tramways.

	PARA.	PAGE
Railways—Construction and surveys	207	80
Interruptions and accidents	208	*ib.*
Traffic and finance	209	*ib.*
Tramways	210	*ib.*

(iii) Canals.

Navigation canals	211	81

Irrigation.

Major irrigation works	212	81
Minor irrigation works	213	82

CHAPTER V.

REVENUE AND FINANCE.

Provincial Settlement.

———	214	83

Gross Revenue and Expenditure.

———	215	84

(a) IMPERIAL REVENUE AND FINANCE.

Total Imperial figures: notable variations	216	84

Land Revenue.

Land Revenue receipts	217	85

Canal (Navigation and Irrigation) Revenue

———	218	85

Sources of Imperial Revenue other than the Land.

Customs	219	86
Opium	220	*ib.*
Salt—General	221	*ib.*
Supplies of salt	222	*ib.*
Excise—General	223	87
Excise—opium	224	*ib.*
Excise—liquors	225	*ib.*
Ganja, cocaine and morphia	226	88
Stamps	227	*ib.*
Assessed Taxes	228	*ib.*

(b) REVENUE AND FINANCE OTHER THAN IMPERIAL.

Provincial Receipts and Expenditure.

Provincial receipts	229	89
Provincial expenditure	230	*ib.*
Forests	231	90

Local Funds.

District Cess Funds	232	90
District Funds	233	*ib.*
Other Funds	234	*ib.*

Road and Education Cesses.

———	235	91

Municipal Revenues.

Rangoon Municipality	236	91
Other Municipalities	237	*ib.*

Other Funds.

———	238	92

Paper Currency.

———	239	92

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

	PARA.	PAGE
Births and Deaths.		
Area under registration and total population	240	93
Number of births and deaths	241	*ib.*
Causes of death	242	*ib.*
Issues of quinine	243	94
Emigration and Immigration.		
———	244	94
Medical Relief.		
Hospitals and dispensaries	245	95
Attendance and treatment	246	*ib.*
General	247	*ib.*
Lunatic Asylums	248	96
Sanitation.		
Principal works and expenditure	249	96
Vaccination.		
Number of operations	250	96
Vaccine Depôt, Meiktila	251	97
General	252	*ib.*

CHAPTER VII.

INSTRUCTION.

	PARA.	PAGE
General System of Public Instruction		
General organization	253	98
Education Department	254	99
Government control	255	*ib.*
Schools and Colleges	256	100
Education Codes	257	*ib.*
Administration	258	101
Inspection	259	*ib.*
Distribution of work	260	*ib.*
Classification of institutions	261	*ib.*
Colleges	262	102
Classification of Schools	263	*ib.*
Classification of Vernacular Schools	264	*ib.*
Special Schools	265	*ib.*
Reformatory School	266	*ib.*
Manual training	267	103
Standards of instruction	268	*ib.*
Vernacular and Anglo-Vernacular Schools	269	*ib.*
Teaching of English	270	*ib.*
Management	271	*ib.*
System of aid	272	104
Vernacular Schools	273	*ib.*
Training Institutions	274	105
Education of backward tribes	275	*ib.*
Aid to Europeans and Anglo-Indians	276	*ib.*
Examination in Pâli	277	*ib.*
Examinations	278	*ib.*
Scholarships and Prizes	279	106
Text-book Committee	280	*ib.*
Education.		
Educational measures	281	106
Number of schools and scholars and expenditure	282	107
Primary education	283	*ib.*
Secondary education	284	*ib.*
Collegiate education	285	108
Technical education	286	*ib.*
Training schools	287	*ib.*
European schools	288	109
Education of Mahomedans and special classes	289	*ib.*
Female education	290	*ib.*
Insein Reformatory School	291	*ib.*

Literature and the Press

	PARA.	PAGE
Publications registered	292	109
Presses, newspapers and periodicals	293	110

Literary Societies

———	294	110

Arts and Sciences

———	295	111

CHAPTER VIII.

ARCHÆOLOGY.

———	296	112

CHAPTER IX

MISCELLANEOUS.

Ecclesiastical Jurisdiction.

The Bishop	297	113
Government Chaplains	298	*ib.*
Archdeacon	299	*ib.*
Additional Clergy	300	*ib.*

Ecclesiastical.

———	301	113

Stationery.

———	302	113

Office of the Chemical Examiner and Bacteriologist.

———	303	114

Office of the Superintendent, Government Printing.

———	304	114

REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR 1911-12.

PART I.

GENERAL SUMMARY.

(1) The Administration; The Frontier States; and the People.

Administration.

1. The Honourable Sir Harvey Adamson, M.A., LL.D., Kt., K.C.S.I., I.C.S., was Lieutenant-Governor throughout the year. There were few changes in administrative units and the number of civil divisions and districts remained unaltered. The reorganization of the Hanthawaddy and Pegu Districts into three separate districts was carried into effect after the end of the year.

The Shan States and Karenni.

2. The progress of the Southern Shan States was satisfactory. The peace of the border was not disturbed and the year was on the whole a prosperous one. Trade increased and the revenue of the States expanded. More cases were reported, but there was a decline in serious crime. The construction of the Shan States Railway progressed during the year, but railhead has not yet reached the border. Expenditure on public works increased in spite of a smaller contribution from Provincial Funds, and the forest revenue also showed elasticity. In Karenni the Council of the State of Kantarawadi continued its reorganization of the State's finances and also embarked on an important scheme of drainage and irrigation.

The Northern Shan States remained unaffected by the revolution in China and no border troubles occurred. The administration of the States was satisfactory and the reorganization undertaken in North Hsenwi was carried through successfully. Criminal cases increased in number and violent crimes were largely in excess of the previous year's figures. The rainfall was poor and ill distributed and several of the main crops suffered considerably. Nevertheless the aggregate revenue of the States expanded during the year and their general financial condition improved. Contributions from Provincial Funds to public works fell to Rs. 64,000, but the States contributed nearly Rs. 3 lakhs from their own revenues. The state of Möng Mit and the minor Shan States in the Upper Chindwin District enjoyed an uneventful and prosperous year.

The Chin Hills.

3. In the Chin Hills the year also passed without events of importance. With the exception of a few minor incidents relations with tribes across the border were friendly. Crime was unimportant. Agriculturally the year was a poor one and rats did much damage to the crops in some parts. The Military Police Battalion was reduced by the transfer of one company of Sikhs.

The North-Eastern Frontier.

4. The peace of the north-eastern border was undisturbed by the Chinese revolution. Expeditions advanced in unadministered territory to Hkāmti Lōng and the Mekh confluence. Serious crime in the hills showed a distinct decrease, though the number of criminal cases reported was in excess of the previous year. Collections of tribute rose slightly, but the failure of the trade in jadestone, owing to the disturbances in China, affected them adversely in Myitkyina. A road was made to the new posts of Htawgaw and Lauhkaung, and intervillage paths generally were maintained in a satisfactory condition.

Condition of the People.

5. The year was a poor one agriculturally though the high prices ruling for rice made considerable amends. Considerable reduction of indebtedness occurred among landowners, but tenants and agricultural labourers were adversely affected in parts of Lower Burma. Though prices everywhere exceeded the scarcity rates fixed in the Famine Code, no serious distress was reported.

(2) The Administration of the Land.

Realization of the Land Revenue.

6. Abnormal floods in the Irrawaddy basin and insufficient rainfall in the dry zone adversely affected the receipts from land revenue during the year. As compared with the previous year there was a large decrease in the total assessment, only compensated for by the substitution of land revenue for part of the *thathameda* formerly collected in Pakôkku, and the introduction of enhanced rates after settlement in certain other districts. Remissions also increased greatly and in seven districts special officers were appointed to assist the ordinary district staff in disposing of applications. As a result collections showed lower figures than any year in the past quinquennium. In spite of the unfavourable character of the year there was no undue rise in the number of coercive processes issued.

Surveys.

7. The Survey of India Department continued its topographical work in the north and east of the Province. No special staffs for revision surveys of cultivation were organized during the year, but temporary establishments were at work under Land Records officers in certain districts. Town surveys progressed slowly owing to lack of funds, and fishery surveys were confined to the Tharrawaddy District. Surveys necessitated by applications for leases for rubber and other special crops, for mining or for mineral oil winning were carried out in several districts, and a special staff was employed in connection with a canal colonization scheme in Minbu.

Settlements.

8. The number of Settlement parties was raised to six. Good progress was made and though no settlement was actually completed field operations were brought to a conclusion in four districts. Four settlements were sanctioned during the year, and, except in the case of Pakôkku, a poor district in the dry zone of Upper Burma, considerable enhancements of revenue are expected to result from the application of the new rates.

Land Records.

9. The area under supplementary survey increased by 900 square miles owing to the expansion of the system in the Pakôkku and Thayetmyo Districts. The

area actually assessed however showed a large decrease as a result of the unfavourable agricultural conditions prevailing during the year. There was a further development of the work in urban areas and a large increase in assessment was obtained, mainly from Rangoon Town and the Hanthawaddy and Tharrawaddy Districts. The expenditure again rose as a result of the increased area dealt with and there was a slight increase in the cost per occupied acre. The Survey Schools contained fewer pupils than in the previous year but the result of examinations was satisfactory. The Survey Training Camp for the Superior Land Records Staff was transferred from the Survey of India to the Provincial Land Records Department during the year.

Transfers of land.

10. The figures of transfers of land recorded for the year indicate that the depression which has prevailed for the past few years is passing away. Both the area sold and the area mortgaged increased, but there was a decline in redemptions. The unprecedented rise in the price of unhusked rice during the last two years has improved credit and is reported to be encouraging a spirit of speculation in parts of Lower Burma. This is reflected in the rise in the mortgage value of land in that part of the Province.

Waste lands

11. Waste lands in most districts are taken up by intending cultivators under squatters' rights, and the leases issued are mainly for rubber estates or other plantations worked on a large scale usually by imported capital. These predominate in the Tenasserim Division, the Mergui District being the chief centre for the activity of the planters.

Revenue and rent-paying classes.

12. The bulk of the occupied land in the Province is held by agriculturists, and only in five districts of Lower Burma has the number of non-agricultural landlords attained serious proportions. The provincial area let at full fixed rents remained stationary, but rents advanced as a result of the high prices prevailing at harvest.

(3) Protection.

Legislation.

13. Four bills were passed by the Legislative Council of Burma during the official year. The Burma Municipal Amendment Act gives Municipal Committees greater powers of control over the demolition and reconstruction of buildings and provides for the payment of annuities to their officers and servants who are not provided for by Municipal provident funds. Other provisions include an indemnity clause for the protection of Municipal officers.

The Burma Military Police Amendment Act confers certain disciplinary powers upon Deputy Superintendents of Police. The Burma Forest Amendment Act empowers the Local Government to sanction the disafforestation of forest land, subject only to the control of the Governor-General in Council, to levy a royalty on manufactured lac and the by-products of crude lac and to impose a duty on forest produce brought from territories under the control of the Local Government to which the Burma Forest Act does not extend. The Burma Towns and Village Amendment Act introduces certain minor alterations into both the Burma Towns Act, 1907, and the Burma Village Act, 1907. No regulations affecting Burma were enacted.

Police.

14. The Police Administration for the year was again satisfactory in spite of a rise in crime. A few minor additions were made to the sanctioned strength of the force. Recruiting improved and the shortage in strength was the lowest for several years. In some districts however suitable recruits are still obtained with difficulty. The conduct of the force showed a general improvement with fewer dismissals and fewer magisterial punishments. The percentage of literacy increased and the results of examinations and training at police depôts were good. Lack of funds for the provision of police buildings continued to cause difficulty in several districts. There was a large increase of crime throughout the Province especially in the more serious categories, such as murder, dacoity, robbery and kidnapping. The success of the Police with regard to detection and prosecution of offences however remained the same, with a slight falling off as regards persons. The preventive sections were successfully employed in certain districts for the breaking up of gangs of organized crimirals. Punitive Police were imposed on parts of the Sagaing, Lower Chindwin, Shwebo, Tharrawaddy, Prome and Amherst Districts during the year.

The Military Police continued to be efficient and in particular did good work in connection with expeditions into unadministered territory bordering on the Myitkyina and Upper Chindwin Districts.

Rangoon Town was quiet throughout the year except for three small unimportant riots. The discipline of the Rangoon Town Police improved and recruits of the required standard were readily forthcoming. There was a distinct advance in the detective work of the force and a decline in the more serious forms of crime.

Village Administration.

15. The total number of village headmen in the Province decreased slightly, but there was an increase in the number of independent headmen drawing commission. The revenue work of the headmen was again satisfactory and they gave material assistance in the detection and repression of crime. There was a rise in the number exercising special criminal and civil powers. The recent Myinmu rebellion in Sagaing and the growth of crime in certain other districts led to a large increase in the fines inflicted under the Village Act, and the Track Law was also administered with greater energy.

Criminal Justice.

16. The number of original criminal cases tried by the Courts of the Province rose by more than three thousand. In Lower Burma there was a disquieting increase in the more serious categories of crime, particularly robbery and dacoity, murder and cattle theft. The number of persons punished rose in both parts of the Province. The witnesses examined increased in number. The duration of cases rose in Upper Burma but was stationary in Lower Burma. Whipping was inflicted in more cases than in the previous year, and in Lower Burma the number of first offenders released on security under section 562 of the Code of Criminal Procedure rose considerably. Appeals increased in Upper Burma but declined in the Lower Province. The percentage of confirmations rose fractionally in Lower Burma but fell in Upper Burma by 2·89 per cent.

Prisons.

17. The convict accommodation in nearly all the jails of the Province, especially in Lower Burma, was overcrowded. Proposals for increased accommodation

are under consideration. The increase in admissions amounted to 98 only, while discharges increased by 2,463, as a result of the 2,871 prisoners released in connection with the Imperial Durbar at Delhi. The number of youthful offenders admitted to jail increased, and the percentage of reconvicted prisoners rose. There was a decrease in the number of offences against jail discipline, in spite of a rise in the daily average convict population. The net cost of maintenance per head also fell. The death-rate rose very slightly, but the health of the prisoners was generally satisfactory.

Civil Justice.

18. The number of suits instituted remained practically the same as in the previous year, but their total value fell both in Upper and in Lower Burma. Pending cases decreased considerably in Lower Burma but increased in the Upper Province. The duration of contested suits again rose, and in Lower Burma the Judges of the Chief Court expressed the opinion that adjournments were too frequently granted at the request of parties or their advocates without due consideration for the interest of witnesses. Fewer judgment-debtors were committed to jail in Lower Burma but the number rose in the Upper Province. In the Chief Court the number of suits disposed of on the original side rose by 65 per cent. owing to the employment of additional judges. A fifth judge was appointed at the close of the year.

Registration.

19. Three new registration offices were opened during the year. The total number of compulsory registrations in the whole Province affecting immoveable property and the aggregate value of the instruments registered rose, but the value of instruments of sale of the value of Rs. 100 and upwards fell heavily in both Provinces, mainly owing to the financial stringency in Rangoon and to the decrease in the value of oil-wells in the Magwe District of Upper Burma. Instruments of mortgage show an increase.

Joint Stock Companies.

20. There were fewer flotations of Joint Stock Companies than in 1910-11, and seventeen companies with a paid-up capital of Rs. 43·04 lakhs were wound up. The most important failure of the year was that of the Bank of Burma, Limited, with a paid-up capital of Rs. 17·62 lakhs. Mining and mineral oil companies were the most numerous of the new flotations, which also included a Chinese Steamship Company and two Laundry Companies in Rangoon.

Rangoon Municipality.

21. Both the ordinary income and expenditure of the Rangoon Municipality rose and the closing balance was Rs. 27·40 lakhs. In view of the unsatisfactory working of the Hlawga pipeline a European expert was engaged to advise on the whole question of the town water-supply. Glanders among the ponies of the town continued to be attacked with success, and schemes for road improvement and for the erection of new Municipal offices were also considered. An epidemic of smallpox and a recrudescence of plague caused a rise in the death-rate, while the birth-rate remained stationary. Vaccinations increased in number.

Other Municipalities.

22. The number of Municipalities remained the same as in the previous year. The aggregate total of both income and expenditure rose, as did the

amount of grants and contributions received from Government. The closing balances continued at a high figure, but complaints of poverty are made from some of the smaller Municipalities at district headquarters. Sanitation continued to absorb a large portion of the available funds. Plague was considerably less prevalent than in former years, and a change in the policy of Government in dealing with this disease was decided on. Extensive rat drives which cause great dislocation of trade and inconvenience to the public are being abandoned and more reliance placed on evacuation, inoculation and permanent sanitary improvements. There was no addition to the number of notified areas under the Municipal Act.

Military. 23. The garrison of the Province consisted of 3,546 European and 6,077 Native officers and men. The expenditure on military works again declined. The number of volunteers increased by 10 per cent. and proposals for the reorganization of the Port Defence Volunteers were under consideration.

Marine. 24. Repairs and improvements were carried out at the Alguada Reef and Savage Island lighthouses and a new beacon was erected on the North Terrible Rocks, west of Kyaukpyu. Good progress was made by the Rangoon Port Trust with the river training scheme and much of the mattress foundation work was completed. The Sule Pagoda wharf was opened to traffic during the year. Both the ordinary income and expenditure of the Trust expanded. The accounts of the Traffic and Port Departments showed a deficit which was met from receipts under the river due. A loan of Rs. 9·50 lakhs was raised during the year. The financial position of the Port was satisfactory but until the river training scheme has been completed and has proved a success cautious administration is desirable. The pilot service was well maintained throughout the year.

Commercial Marine. 25. The number of vessels engaged in trade with foreign countries which entered the port of Rangoon during the year rose by 14 per cent. and their tonnage by 13 per cent. There was however a slight decrease both in the number and tonnage of coasting vessels entering the port. In the case of the subordinate ports the number of vessels engaged in the foreign trade which entered and cleared increased, as also did the aggregate tonnage. Sailing vessels are gradually being ousted by steamers in the trade between the Straits Settlements and the ports on the Tenasserim coast. In the coasting trade of the minor ports the number and tonnage of the vessels entered and cleared both show an increase.

(4) Production and Distribution.

Agriculture. 26. The first Agricultural and Co-operative Conference for Burma was held at Mandalay in July 1911. His Honour the Lieutenant-Governor presided and over 300 delegates and others were present. Three European experts were attached to the Agricultural Department during the year. A scheme for the establishment of a staff of District Vernacular Agriculturists has been adopted. The work on the experimental stations at Mandalay and Hmawbi continued, seed selection and distribution in particular receiving attention. Moisture resisting paddy in the Akyab District was cultivated on an increasing scale. Much useful work was done in the Chemical Laboratory, as also in the branches of Botany and Entomology.

The Veterinary Department also had a successful year. The Veterinary School at Insein increased the number of its pupils and that at Taunggyi has shown satisfactory results. Funds were provided for the better equipment of the Insein School.

Stock and Cattle Disease.

27. There was a general decrease in the mortality of cattle from contagious diseases. Deaths from rinderpest and foot-and-mouth disease fell considerably in number, but those from anthrax and allied complaints rose slightly. Preventive inoculation was undertaken in twelve districts with good results. The experiment of permitting certain Veterinary Inspectors and assistants to inoculate without superior supervision was attended with success. The advantages of segregation are becoming better understood by the people and in some districts the formation of permanent Segregation Camps has been successfully undertaken. Bulls and bullocks increased in number during the year, while buffaloes showed a decrease. Sheep remained stationary but other stock increased in number.

Weather and Crops.

28. The season 1911-12 was not a good one. August and September brought floods in many parts of Lower Burma and prolonged periods of drought in the dry zone of Upper Burma. Throughout the Province the late rains were inferior, while a late rise in the Irrawaddy and Chindwin Rivers did damage to island cultivation. The occupied area rose by one and-a-half per cent., but some of this rise is due to incorrect estimates last year. The area of fallow increased owing to the poor season in Upper Burma and out of a net cropped area of 13¼ million acres over a million acres failed to mature. The area under rice fell. Sesamum, maize, groundnut and cotton all showed increased areas under cultivation. There was an expansion in the area under rubber, due in part to revised estimates of the Mergui plantations. The area irrigated from all sources showed a further decline, but Government canals irrigated 420,000 acres, an advance of 11 per cent. on the previous year. The figures of private irrigation, especially in Pakôkku are not altogether reliable. The opening of the Môn Canals in the Minbu District took place during the year.

Outturn and Prices.

29. The rice crop was, generally speaking, below normal, the provincial estimate being fixed at 87 per cent. of a normal crop. Even this was not realised and the total exports in 1911 were 2·4 million tons only, in spite of unexpectedly large exports from Upper Burma. The year was marked by an unprecedented rise in the price of unhusked rice owing to a brisk demand from China, Japan and Java. The highest point touched was Rs. 204 per 100 baskets in October 1911. The prices in December at the advent of the new crop were still 30 per cent. above normal, and by June 1912, had risen to Rs. 200 per 100 baskets. The outturn of cotton improved, but prices were low owing to the plentiful supplies. The price of millet, maize and other food grains rose in Upper Burma in sympathy with the price of rice. Groundnut declined in price, but that of beans and sesamum generally improved.

Agricultural Loans.

30. The amount advanced to cultivators by Government during the year showed a slight increase. The unfavourable character of the year led to a large increase in suspensions. An alteration of practice whereby the loans are issued earlier in the year than was formerly the case has made loans under the

Agriculturists' Loans Act more popular than in the past, but the Land Improvement Loans Act continues to be neglected.

Co-operation.

31. Co-operative activity developed greatly during the year. Rural Credit Societies rose from 444 to 691 and by the end of the year 486 of them had been organised into 43 unions which are in many cases proving efficient controlling and inspecting agencies. A special Registrar and staff were appointed during the year to finance the settlers on the lands under the recently opened Môn Canals with agricultural advances from Government funds through the medium of Co-operative Credit Societies. The Upper Burma Central Bank has become the main financing agency for the movement, and at the end of the year had advanced Rs. 12·19 lakhs to societies. A dividend of 9 per cent. was paid on the year's working. Urban Credit Societies increased in number by ten, but have not so far justified all the hopes centred in them. A commencement was made with the formation of societies for the sale of grain and much useful experience gained. Cattle insurance societies increased from 6 to 23 and are now found in four districts.

The new Co-operative Societies Act (II of 1912) came into force during the year.

Horticulture.

32. The Agri-Horticultural Society of Burma increased its membership during the year and its annual exhibition was more successful than usual. The Tenasserim Agri-Horticultural Society also had a prosperous year.

Forests.

33. There was an insignificant rise in the total area of forest reserves recomputation after survey leading to a decrease almost equal to the additional area of forest reserved during the year. Settlement work advanced but the progress of survey is slow and the need of a special forest survey is increasingly felt. Working-plans continued to command attention, but the area still to be dealt with remains large and the staff available for the work limited. Greater energy on the part of the staff led to an increase in the offences against forest rules disclosed. Fire protection was less successful than usual owing to an unfavourable season. Teak extraction both by the Department and by purchasers declined, but the number of trees girdled was considerably larger than in the previous year. A noticeable feature of the year was the development of an export trade at Moulmein in woods other than teak.

Mines and Quarries.

34. The mineral resources of the Province continued to provoke the interest of prospectors and the number of applications for exploring and other licenses presented, as also the number of cases finally decided, again rose largely. The exploitation of wolfram ore and other minerals in the Tavoy District attracted most attention but other districts, especially those of the Tenasserim Division, are also exciting interest. In the oil-bearing regions of Upper Burma the search for new oil-fields capable of being worked at a profit continued in the districts where oil has already been found and for the first time prospecting licenses were applied for in the Upper Chindwin. The Minbu oil-fields promise well, and the exploitation of the lower sands at Yenangyaung, where the upper

sands previously worked are showing signs of exhaustion, may yet be attended with good results. The Copper Mine in Myitkyina has ceased its operations and neither gold dredging nor ruby mining proved remunerative, the latter owing to the weakness of the European market. The Burma Mines Company continued their extraction of silver, lead ore and lead slag, from the Bawdwin Mines in the Northern Shan States.

Manufactures and Factories.

35. A Match factory in Mandalay, two flour mills in Rangoon and the Stone Works of the Rangoon Port Commissioners at Kalagauk in the Amherst District are the most noticeable among the new factories of the year.

There was a slight decrease in the total number of operatives employed in factories. In Rangoon there was a considerable increase in the employment of children, but the total number engaged is still small. Wages remained at about the same level and no difficulty is found in obtaining labour. The operatives continue to be well treated.

Maritime Trade.

36. The sea-borne trade of the Province, foreign and coasting, continued to increase, both in the case of imports and exports. Piece-goods, apparel, provisions and goods of similar categories were imported in larger quantities, showing increased purchasing power in the people, but metals, machinery and the like declined. In exports the greatly enhanced price of rice was mainly responsible for the rise, but raw cotton and other agricultural products also contributed. Rubber and wolfram ore showed satisfactory increases.

Rangoon continued to command by far the largest portion of the Maritime trade of the Province. The development of wolfram mines and rubber plantations in the Tenasserim Division caused a considerable rise in the trade of the minor ports of Mergui and Tavoy.

Transfrontier Trade.

37. The Transfrontier trade of the Province continued to develop during the year and the aggregate trade with all countries except Western China, where the revolution proved a disturbing factor, showed considerable increases. The comparative absence of cattle disease in the Southern Shan States and Siam led to a large advance in the number of stock imported.

Public Works—Roads and Buildings.

38. The expenditure on Provincial Civil Works, exclusive of Irrigation, rose to Rs. 80·26 lakhs, or a quarter of a lakh above the amount estimated to be available each year when the Financial Settlement for the Province was drawn up in 1907. The corresponding figures for the past 3 years are 81, 67 and 67½ lakhs. Despite this increase in the money available many important projects, under all heads, have had to be postponed owing to a lack of the necessary funds for their execution. These projects include the provision of suitable housing accommodation for the police throughout the Province, the separation of habitual from casual prisoners in jails and the enlargement of Court houses in Lower Burma. The amount available for new communications rose by nearly two lakhs, but was still wholly inadequate in view of the existing lack of good roads in all parts of the Province.

The most important work in progress during the year was the erection of new buildings for the Government Press, Rangoon, at an estimated cost of over five lakhs of rupees. About three-fourths of the work was completed during the year and it is hoped that the building may be ready for use early in 1913.

A special grant from the Government of India spread over two years enabled a commencement to be made with the erection of some new schools in various parts of the Province. Several more will be put in hand during the coming year.

Railways and Tramways.

39. The length of open railway line increased slightly owing to the completion of a small branch near Rangoon. The construction work on the Southern Shan States Railway progressed and it is hoped that by 1914 the first seventy-two miles will be open for traffic. The construction of two short lines recommended by the Local Government was postponed by the Railway Board through lack of funds, but provision has been made for a siding to Dawbong and a bridge over the Pazundaung Creek. No serious breaches or accidents occurred during the year. The number of passengers carried increased by two million and net profits also rose. The percentage of net earnings to capital expanded both on the main line and the open branches.

Authority for the construction of the Maungdaw-Buthidaung Tramway issued during the year. Both in Rangoon and Mandalay the Electric tramways carried more passengers over a smaller running milege, the receipts declining in Rangoon and rising slightly in Mandalay. The first section of the Madaya-Mandalay light railway was opened during the year.

Irrigation and Canals.

40. The absence of the special causes which in 1910-11 caused a fall in the area irrigated by the Mandalay and Shwebo Canals, the two major irrigation works of the Province then open, led to an increase in the area watered by these canals during the year of report. The newly completed Môn Canals were opened in May 1911 and irrigated twenty-five thousand acres. Progress on the Ye-u Canal continued and an important scheme for widening, deepening and improving the existing Twante Canal and the Twante and Kanaungto creeks connected with it which together form the main artery of trade for launches and cargo boats between the Rangoon and main Irrawaddy Rivers was sanctioned at a total estimated cost of Rs. 72·80 lakhs. Work on the project commenced in July 1911, but was confined to survey, land acquisition and the purchase of the necessary dredging and other plant. The inferior character of the season in the dry zone of Upper Burma adversely affected the minor irrigation systems in several districts where the catchment areas are small and the water-supply largely depends on local rainfall, but in Kyauksè and Minbu, where the rivers are larger the results of the year were on the whole satisfactory.

(5) Finance.

Provincial Financial Settlement.

41. The terms of the Financial Settlement of the Province originally concluded in 1907 were modified during the year, in pursuance of the policy recommended by the Royal Commission on Decentralization of converting a portion of the large fixed assignments annually made from Imperial Revenues into an additional share of growing revenue. The Provincial share of Land Revenue, including the

portion due to Irrigation, as well as of the corresponding refunds and compensations was raised from one-half to five-eighths and Forest revenue and expenditure were made wholly Provincial. At the same time the fixed assignment from Imperial to Provincial was reduced to Rs. 12·90 lakhs. In other respects the financial arrangements of the 1907 Settlement remained unchanged. The system of additional lump sum grants for special purposes from Imperial to Provincial Funds continued and the total contributions from Imperial Funds received by the Province during the year aggregated Rs. 48·95 lakhs, or Rs. 36·05 lakhs in excess of the fixed assignment.

Gross Revenue and Expenditure.

42. Imperial receipts fell by seven and a half lakhs, and totalled three hundred and eighty-four lakhs. Provincial receipts rose by over twenty-eight lakhs to five hundred and sixteen lakhs. Local receipts also expanded, the income of District and District Cess Funds, of Municipalities and of the other local funds of the Province all showing considerable advances. Imperial expenditure fell from seventy-six to sixty-six lakhs, but there was a large increase in the outgoings from Provincial Funds which rose from four hundred and sixty-nine to five hundred and twenty-nine lakhs. District and District Cess Funds spent less than in the previous year, but the charges of Municipal and other local funds both rose.

Land Revenue.

43. The total demand from all heads of Land Revenue according to the departmental books showed a decrease of three lakhs as compared with that of the previous year, and collections fell by nearly six lakhs. The unsatisfactory character of the season adversely affected the receipts both from ordinary land revenue and from fisheries, collections falling in both cases. The high price of rice obtaining throughout the year was much felt by the poorer non-agricultural classes As a result the collections of *thathameda* in Upper Burma declined by over five lakhs and those of capitation-tax in the Lower Province remained stationary. There was an increase in the receipts under Miscellaneous Land Revenue.

Customs.

44. The net revenue of the Rangoon Custom House continued to expand though at a reduced rate as compared with the previous year. There was a fall in the revenue from export duty of over a lakh, the January rains having retarded the shipments of rice from Rangoon. The deferred exports will swell the figures for the ensuing year. There were increases in the receipts from import duty both in the case of salt and other goods, and the net revenue totalled 153 lakhs of rupees, an advance of over three lakhs on that for the previous year. The net revenue at subordinate ports also increased by a lakh, the export duty, of which Bassein contributed the largest share, being mainly responsible for the advance.

Salt.

45. The rate of duty on salt was raised from Rs. 2-3-6 to Rs. 2-11-9 per 100 viss from the 1st January 1911, composition rates being also altered in proportion. There was a large decrease in the districts under composition duty in the number both of licenses issued and of the vessels employed. On the other hand a favourable season caused a general increase of output per vessel throughout the Province, particularly in the districts under direct taxation where alone the figures can be regarded as reliable. It is, however, too early to judge what the permanent effect of the enhanced duty will be. The revenue demand for the

whole Province rose by 30 per cent., while the revenue on foreign salt increased by a little over 9 per cent. The imports of foreign salt were the highest on record, the chief feature being the increase in the quantity of English salt imported. Prices ruled higher than usual and consumption increased mainly as a result of the larger requirements of the fishing industry.

Excise.

46. The chief event of the year in the Excise administration was the placing of the establishment on a permanent footing and its amalgamation with the Salt establishment. The revised establishment consists of 1,070 men, of whom 563 are menials and the total cost has risen from 7¾ lakhs to 8·56 lakhs. The increased effectiveness of the restrictions placed on the consumption of opium resulted in a fall in the revenue derived from this drug. This decrease was, however, more than counterbalanced by an expansion in the fees received for liquor licenses, and the aggregate revenue exceeded that for the previous year by over a lakh. The quantity of opium sold from licensed shops fell for the seventh year in succession and is now less than three-fourths of the consumption for 1906-07, while the revenue receipts were nearly twelve lakhs less than in that year. This decrease in consumption is specially noticeable in Rangoon Town where opium sales have fallen by more than one-half in the last five years. An increase of twenty-five per cent. in the price of the drug both wholesale and retail was made during the year.

The year was marked by an important decision to extend the contract distillery system with a view to the substitution of country spirit for cheap foreign spirit and country beer. In the remotest part of the Province where the system is already in force, it has met with moderate success, but some reductions in the rate of duty have been found necessary to enable the distillery-made spirit to compete with the product of illicit outstills, and, with a view to securing better control, some modifications have been made in the rules and license forms. Certain other changes were also introduced with the same object after consultation with the Burma Chamber of Commerce. There was an increase of four lakhs in the receipts from liquors mainly in consequence of the keen competition for the licenses for imported liquors in Rangoon Town, indicating that the traders have found means to adapt their business to the heavier taxation imposed in 1910.

The cocaine and morphia habits continue to maintain their hold on the people, and there is no reason to believe that either has decreased in spite of reports to the contrary from some districts.

Stamps.

47. The stamp revenue of Burma has been for some years in a stagnant condition, and there was no sign of recovery during the year of report, the gross receipts in 1911-12 being two-and-a-half lakhs less than in the previous year. Financial stringency in Rangoon, the result of the failure of several joint stock companies during the year, depression of trade in some out-districts, and the continued restriction of their money-lending business by the Chetty community are given as the reasons for the decline.

Assessed Taxes.

48. The income-tax collections also show a lack of elasticity, the increase in the total collections being only half a lakh. This was particularly noticeable in

the case of assessments on private income where the amount realised decreased in spite of a rise in the number of assessees.

The number of persons assessed upon salaries and pensions paid by Government again rose. The total value of the securities held in the Province advanced by nearly 7 per cent. A larger number of companies were assessed to income-tax than in the previous year but the increase in collections was only one per cent.

Provincial Revenue and Finance.

49. The aggregate Provincial receipts, as shown in the Financial Accounts, rose by twenty-eight lakhs of rupees. There was a large decrease under the head *Land Revenue* due to a reduction in the assignment from Imperial to Provincial Funds of nearly eighty-four lakhs as a result of the new financial arrangements in force during the year. The simultaneous transfer of all Forest receipts and expenditure to Provincial Funds led to increased receipts of forty-nine lakhs under this head. Provincial charges expanded by nearly sixty lakhs. The transfer of all Forest expenditure from Imperial Funds caused an increase of twenty-two and a half lakhs and the cost of Civil Public Works and Police rose by nearly thirteen and six lakhs respectively. Under two heads only was there a decrease in expenditure, but in both cases so small as to be unimportant.

Forests.

50. The forest revenue of the year 1910-11 was swollen as the result of special causes. The absence of these causes during the year of report led to a decrease of about eleven lakhs in the gross receipts, but the total is still two lakhs better than that of 1909-10. The expenditure again rose leaving a net profit to the Department of over 52½ lakhs of rupees. As a result of the changes in the Financial Settlement of the Province introduced at the commencement of the year forest revenue and expenditure are now entirely Provincial.

Local Funds.

51. The number of District Cess Funds in Lower and of District Funds in Upper Burma was the same as in the previous year. All the funds remained solvent, and the closing balances to their credit at the end of the year slightly exceeded the opening balances at its commencement by Rs. 2,648. There was a general increase in receipts and a reduction in expenditure in the case of both classes of funds. The seven Cantonment Funds showed decreases both in income and expenditure. All were reported to be solvent at the close of the year.

There was no addition to the number of Town or Port Funds. All possessed adequate closing balances at the end of the year and their financial condition together with that of the Pilot and other funds banking with Government was satisfactory.

Muncipal Finance.

52. The income of the Rangoon Municipality rose by three-and-a-half lakhs and exceeded its expenditure by over four lakhs of rupees, and the closing balance at the end of the year was Rs. 27·40 lakhs. The recent expansion of revenue is largely due to the systematic revision of assessments during the past few years, and when the revision is completed may be expected to slacken considerably. Expenditure rose by two-and-a-half lakhs and several important and costly schemes are under consideration by the Committee. The incidence of taxation was just under Rs. 10 per head of population. A loan of five lakhs was raised during the

year, making the total debt of the Municipality Rs. 186·78 lakhs. The extraordinary and debt charges for the year amounted to 21 per cent. of the total expenditure. In the absence of any revival of the demand for land in Rangoon no resumption of reclamation measures on a large scale was attempted.

The other Municipalities of the Province showed increases, both of income and expenditure and enhanced closing balances at the end of the year. The average incidence of taxation per head of population was less than one-fourth of that in Rangoon.

Note circulation.

53. The average net circulation of currency notes for the year was three hundred and fifty-six lakhs, an increase of eighty lakhs over that of the previous year. The use of currency notes in the districts adjacent to Rangoon and Bassein extended enormously and they were extensively employed for the payment of Land Revenue. The popularity of the ten rupee note is growing rapidly but has not yet equalled that of the hundred rupee denomination which still forms more than 50 per cent. of the total number of notes in circulation. A resemblance to the ten rupee note in the colouring and design of the new pattern adversely affected the use of fifty rupee notes.

(6) Vital Statistics and Medical Services.

Births and Deaths.

54. The area under registration remained the same. The birth-rate for the year was 32·64 and the death-rate 25·07 *per mille*. The ratios being calculated for the first time on the figures of the 1911 census, no comparison with former years is possible. The total number of births and deaths exceeded the numbers in the previous year by fourteen thousand and seven thousand respectively. Cholera and small-pox were largely responsible for the increased mortality. The infantile mortality of the whole Province fell to 221·87 *per mille*, but the urban infantile death rate rose from 316·32 in 1910 to 332·38 *per mille*. Large quantities of quinine tablets were again issued and their use continued to be popular.

Plague.

55. There was a considerable decrease in the number of deaths recorded from plague. Both in Upper and Lower Burma outbreaks were largely confined to the towns, and there was a great reduction of mortality from this cause in Mandalay. Rat destruction, inoculation, evacuation and general sanitary improvements were the principal preventive measures undertaken.

Medical Relief.

56. An addition of five was made to the number of hospitals and dispensaries in the Province. The service of Civil Assistant Surgeons was reorganised during the year. The total number of patients treated rose, as did the number of women attending for outdoor treatment at the various institutions. The percentage of Burmans to the total number of patients was nearly 54, or approximately the same as last year. The number of students in the Government Medical School at Rangoon increased, but there is still a difficulty in securing Burmese candidates with the necessary educational qualifications.

Sanitation.

57. Urban and rural authorities continued to devote attention to sanitary works, 26·17 per cent. of their total income being devoted to this purpose.

Schemes for the water-supply of Thayetmyo and Kyaiklat were approved, and schemes for Yandoon and Kyaukpyu are under examination. The Bassein reservoir has not realised expectations. Tube wells were successfully sunk at Toungoo and Nyaunglebin. Drainage schemes for certain areas of Moulmein and Akyab were also sanctioned.

58. Vaccinations increased by more than 25 per cent. and there was a satisfactory improvement in the number of successful operations in which the result was known, the aggregate amounting to nearly half a million. There was a large increase in the total of operations verified by Civil Surgeons and that of operations verified by Native Superintendents also rose. The issue of lymph at the vaccine depôt at Meiktila was the largest on record, and some economy was effected by the hiring of calves instead of purchasing and reselling them as in former years. The total expenditure on vaccination rose slightly to over two lakhs. Vaccination.

(7) Instruction.

59. With the year 1911-12 a quinquennial period comes to a close during which there has been a marked improvement in the efficiency of public instruction in Burma. Future progress must depend largely on financial considerations, as it has been estimated that a capital expenditure of 10 lakhs per annum for several years and an annual recurring expenditure amounting to at least 20 lakhs at the end of three years will be necessary if every branch of education is to be brought up to the requisite standard. The provincial revenues are inadequate for the provision of so large a sum and the hope of realising this programme therefore depends on the extent to which assistance will be forthcoming from Imperial sources. Students reading for University examinations show a marked increase and the percentage of success has also risen. In spite of the willingness shown by the Calcutta University to modify its regulations to suit the particular circumstances of Burma, the establishment of a separate university for the Province is a desideratum, though not at present a matter of immediate urgency. Provincial Funds are insufficient to provide the necessary equipment, and unless the whole cost can be defrayed from Imperial revenues the project must be indefinitely postponed. In Secondary education the object of Government is to provide at least one Government High School in each Upper Burma division and a Government Middle School in each Upper Burma district. In Lower Burma each district requires its own high school and there should be a middle school where there is a demand for one. The realisation of this policy will involve considerable expenditure on buildings, staff and equipment and also on the provision of the necessary training for the teachers. More than one-half of the boys receiving primary instruction attend monastic schools which have refused to submit to the control of the Department. Measures are under consideration which it is hoped will enable the Department to win the confidence of the managers of these schools, and also provide the means for a modicum of Normal training to be given to *póngyis* engaged in the study of the Pâli scriptures at the more important centres. Education.

The number of educational institutions recognised by Government increased slightly during the year. Attendances were also larger. Fees from pupils supplied

nearly one-third of the total expenditure on education, which reached Rs. 47·37 lakhs, the remaining two-thirds being contributed from Provincial Funds and from Local Funds and private sources in the proportion of two to one. Public primary institutions decreased, but there was an increase in attendance. In secondary education the attendance at Anglo-Vernacular boys' schools remained stationary, but that at Vernacular schools rose considerably. The results of examination in the Vernacular Seventh Standard were however inferior. The best results were obtained in the Calcutta University Matriculation where the percentage of passes was 81 per cent.

Collegiate education continued to expand, most of the students being Burmese Buddhists. The number of successful candidates for the Intermediate Arts and Bachelor of Arts examinations of the Calcutta University increases yearly.

The Government School of Engineering at Insein still failed to attract Burmese students and reforms are under consideration. There was a considerable increase in the number of students attending Normal schools, and the proportion of passes in the Training school examination was satisfactory. There was no change in the number of schools for Europeans and Anglo-Indians, and but little alteration in the attendance. There was a marked improvement in the popularity and efficiency of the European High school at Maymyo. The attendance of Mahomedans at educational institutions decreased slightly and there was a considerable fall in that for other special classes, mainly among Talaings and Taungthus. The most important special class continues to be the Karen, in which most of the students are Christians. A noticeable feature of the year was the rapid increase in the number of girls under instruction in public institutions.

Literature and Presses.

60. There was no change of importance in the literary output of the year; either as regards quantity or quality. As in former years drama, religion and grammar were the subjects chiefly dealt with by Burmese or Pâli authors.

The number of presses at work increased and now totals 123. The majority of these are in Rangoon and Mandalay.

Arts and Sciences.

61. The annual Provincial Art Handicrafts Exhibition was held successfully in Rangoon, and a similar local exhibition took place at Bassein. The exhibits in both cases were up to the average standard.

(8) Archæology.

Archæology.

62. The chief incidents of archæological interest during the year were the excavation of the terracotta plaques at the Eastern Petleik pagoda at Pagan and the discovery of two inscribed stone reliquaries at Yathemyo near Prome which are likely to be of importance in elucidating the language and history of the ancient Pyu people.

BURMA SECRETARIAT, THE 31ST DECEMBER 1912.

PART II.

DEPARTMENTAL CHAPTERS.

NOTE.—The departmental reports and other references, on which this *Report on the Administration of Burma* is based, are noted at the beginning of each chapter. The departmental reports do not all cover the same period. The Reports on the Administration of Civil and Criminal Justice, the Police, Prisons, the Registration Department, the Salt Revenue, the measures adopted for the extermination of Wild Animals and Poisonous Snakes, Lunatic Asylums, the Report of the Chemical Examiner and Bacteriologist, the Report on the working of the Government Medical School, Rangoon, the Resolution on the Reports on Village Administration in Burma, and the Resolution on the Reports on the working of the Indian Factories Act in Lower Burma, deal with events which took place within the calendar year 1911; the Shan States, Chin Hills and the North-Eastern Frontier Reports, the Land Revenue, Land Records, and Forest Administration Reports, the Season and Crop Report, the Report on the working of the Co-operative Credit Societies Act and the Report of the Department of Agriculture are concerned with the agricultural year from the 1st July 1911 to the close of June 1912 All other reports cover the twelve months of the official or financial year that ended on the 31st March 1912.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

REFERENCES :—

Report on the Administration of the Shan and Karenni States for the year ended the 30th June 1912.

Report on the Administration of the Chin Hills for the year ended the 30th June 1912.

Report on the Administration of the North-Eastern Frontier for the year ended the 30th June 1912.

Season and Crop Report of Burma for the year ending the 30th June 1912.

Land Records Administration Report of Burma for the year ending the 30th June 1912.

PHYSICAL.

Physical Features of the Country, Area, Climate and Chief Staples.

Area and boundaries.

1. The Province of Burma occupies the western edge of that portion of the Continent of Asia which lies between the Bay of Bengal and the China Sea and is generally known as Indo-China. It is situated between latitude 9° 58′ and latitude 28° North and between 92° 11′ and 101° 9′ East longitude and its area has been estimated at 261,839 square miles of which Burma proper occupies 164,411 square miles, the Chin Hills some 11,700 square miles, the Shan States which comprise the whole of the eastern part of the Province some 54,728 square miles, and unadministered territory 31,000 square miles. In the north the boundary between Burma, Tibet and China has not yet been precisely determined. The north-western frontier touches Assam, Manipur, the Lushai Hills and the Chittagong Hill Tracts, and the Bay of Bengal forms the western boundary. On the north-east and east Burma marches with the Chinese Province of Yünnan, the Chinese Shan and Lao States, the French possessions in Indo-China and the Kingdom of Siam. The southern boundary is the Pakchan River which divides it from the Siamese portion of the Malay Peninsula.

The area within these boundaries includes besides Burma proper, the Northern and Southern Shan States, the State of Möng Mit with its dependency Möng Lang, the States of Hkāmti Lōng, Thaungdut, Kanti and the Chin and

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

Kachin Hill Tracts, all of which are administered under the control of the Government of Burma.

The extreme length of the Province is approximately 1,200 miles and its extreme width between the 92nd and 101st parallels of longitude at about 21° north latitude is 575 miles.

Natural divisions.

2. The Province falls into three natural divisions: Arakan, the Irrawaddy basin and the old province of Tenasserim. Arakan is the strip of territory lying between the Bay of Bengal and the range of hills known as the Arakan Yoma. It extends from Cape Negrais on the south to the Na-af estuary which divides it from the Chittagong Division of the Province of Bengal on the north and includes the districts of Sandoway, Kyaukpyu, Akyab and the Hill District of Arakan, an area of some 14,807 square miles. The northern part of this tract is barren hilly country, but in the west and south are rich alluvial plains containing some of the most fertile land in the Province.

To the east of the Arakan Division and separated from it by the Arakan Yoma lies the Irrawaddy basin within the limits of which is situated the greater part of Burma proper. This tract comprises four subdivisions.

There is first the highland tract in which is included the mountainous region around the sources of the Chindwin river and the upper waters of the Irrawaddy, the Chin Hills, and the Northern and Southern Shan States. Within this tract fall the Upper Chindwin, Myitkyina, Bhamo, Katha and Ruby Mines Districts. The greater part of this country is a mass of rugged hills deeply pierced by narrow gorges which form the outlet to the plains of the rivers which take their rise there. In the Shan States however there are some open plateaux which are fertile and well populated, and Maymyo, the hill station to which in the hot weather the Government of Burma migrates, stands in the Pyin-u-lwin plateau, some 3,500 feet above the sea.

The second tract is known as the dry zone of Burma and includes the whole of the lowlands lying between the Arakan Yoma and the foot of the hills which rise up to the Shan plateau. It stretches along both banks of the Irrawaddy from the north of Mandalay to a point south of Thayetmyo and includes the Lower Chindwin, Shwebo, Sagaing, Mandalay, Kyauksè, Yamèthin, Meiktila, Myingyan, Pakôkku, Minbu, Magwe and Thayetmyo Districts. This tract consists mostly of undulating lowlands, but is broken towards the south by the Pegu Yoma, a considerable range of hills which divides the two remaining tracts of the Irrawaddy basin.

On the west, between the Pegu and the Arakan Yoma, stretches the Irrawaddy Delta, a vast expanse of plain, 12,000 square miles in area, falling from its apex not far south of Prome in a gradual unbroken slope down to the sea. This delta, which includes the districts of Bassein, Myaungmya, Ma-ubin, Pyapôn, Henzada, Hanthawaddy, Insein, Tharrawaddy, Pegu and Rangoon Town, consists almost entirely of a rich alluvial deposit, and the whole area, which between Cape Negrais and Elephant Point is no less than 137 miles wide, is fertile in the highest degree.

To the east lies a tract of country which, though geographically a part of the Irrawaddy basin, is separated from that river by the Pegu Yoma and forms a separate system draining into the Sittang river. The northern portion of this tract, which, on the east, touches the Salween river, is hilly; the remainder, the land on the lower reaches of the Sittang river and towards the confluence of the Salween, Gyaing and Ataran rivers, consists of broad fertile plains. The whole is comprised in the districts of Toungoo, Thatôn, and Salween which together form the northern portion of the Tenasserim Administrative Division.

The third natural division of Burma is the old province of Tenasserim which, constituted in 1826 with Moulmein as its capital, formed the nucleus from which British rule in Burma has grown. It is a narrow strip of country lying between the Bay of Bengal and the high range of hills which forms the eastern boundary of the Province towards Siam. It includes the districts of Amherst, Tavoy and Mergui together with the Mergui Archipelago. The surface of the country is mountainous and much intersected with streams.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY, Mountains.

3. The principal mountain systems of the Province start from the labyrinth of hills which lies to the north and extends into Tibet. So dense are the hill masses in the angle caused by the converging of the Assam and China frontiers that the only general classification possible is that which distinguishes the highlands lying to the west from those lying to the east of the Irrawaddy river. To begin with the former, the Kumon range in the Myitkyina District, forms the eastern boundary of the Hukong valley where the Chindwin river takes its rise. This range runs from Hkāmti Lōng towards the neighbourhood of Mogaung and is continued in a series of ridges which form the watershed between the Irrawaddy and Chindwin rivers. The Taungthonlon, an eminence 5,652 feet in height, marks the northernmost point of the most distinctive of these ridges. South of the Hukong valley is a mass of broken hill country known as the Jade Mines Tract which lies more or less at right angles to the ranges described above and abuts in the west on the upper reaches of the Chindwin. On the west of the Chindwin are the Naga and Manipur hills, with peaks running up to over 12,000 feet, which follow the course of the river southward and form the western frontier of Burma. Further south this upland country is known as the Chin Hills and the range is continued in the Arakan Yoma which dips to the sea at Cape Negrais. Two of the highest points in this system, Saramati and Mount Victoria, reach heights of 12,557 and 10,400 feet respectively. East of the Irrawaddy, a succession of mountain chains and plateaux forms the watershed between that river and the Salween. The Eastern Kachin hills run south from the ridge which separates the headwaters of those two great rivers and, running south and south-west, terminate in the high ground which is massed in the north of the Northern Shan States and the Ruby Mines District. Southward again the Shan plateau extends from the Irrawaddy to the Salween. In the Northern Shan States the grouping of the hills is irregular, but in the south the ridges tend more and more to run north and south. South of Toungoo the high land to the west of the Salween narrows and under the name of the Paunglaung range drops down to the level of the Thatôn plain. East of the Salween lie the hills of the Wa States in the north and further south the range in the Shan State of Kēngtūng which forms the Salween-Mekong watershed. As the confines of the Lao States are reached, a mass of hills curves round the southern edge of Kēngtūng along the Siam border down the east of Karenni, sending out southern spurs which stretch along the marches of Amherst, Tavoy and Mergui to the extreme southerly limit of Burma. An isolated range of hills is the Pegu Yoma which rises in the Yamèthin District and running southwards separates the valleys of the Irrawaddy and the Sittang. Near the head of the Irrawaddy Delta it branches out into several low terminal hills, on the last of which is built the Shwedagôn Pagoda in Rangoon. Popa, a detached peak in the Myingyan District, belongs to this system and rises to a height of nearly 5,000 feet; it is interesting as an extinct volcano, a landmark, and a subject of superstitious folklore throughout the whole of Central Burma.

Rivers.

4. The principal river of Burma is the Irrawaddy. It is formed by the junction, in latitude 25° 45′ North about thirty miles north of the town of Myitkyina, of two rivers, the 'Nmai and Mali, which take their rise in the wild tangle of mountains which lie between Burma and Tibet and traverses the Province from north to south, entering the Bay of Bengal through a multiplicity of mouths between Rangoon and Cape Negrais. Up to Bhamo, a distance of 900 miles from the sea, it is navigable throughout the year and its chief tributary the Chindwin is also navigable for steamers for 300 miles from its junction with the Irrawaddy above Pakôkku.

The Chindwin, known in its upper reaches as the Tanai, rises in the hills south-west of Thama in the Myitkyina District and flows due north till it enters the south-eastern corner of the Hukong valley, where it turns north-west and continues in that direction cutting the valley into two almost equal parts until it reaches its north-west verge when it turns almost due south and takes the name of Chindwin. It is a swift river, fed in its upper reaches by numerous mountain streams. Further south its chief tributaries are the Uyu, Yu and Myittha.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

The Mogaung river rises in the hills which form the watershed between the Irrawaddy and the Chindwin, flows southward till at Kamaing it receives the overflow of the Indawgyi Lake in the Indaw river and thence continues its course south-eastward to join the Irrawaddy.

The Taiping rises in China and flows for about forty miles through British territory before it reaches the Irrawaddy just above Bhamo. It is only navigable by country boats. Another left bank affluent of the Irrawaddy is the Molè, a tortuous stream of about a hundred miles long, which during the rains is navigable by country boats for about three-quarters of its length. Further south is the Shweli which rises in the Chinese Shan Hills, winds through the State of Möng Mit and turning northwards finally reaches the Irrawaddy in the north of the Ruby Mines District. The Myitngè, known in its upper reaches as the Nam Tu rising in the Northern Shan State of Hsenwi, joins the Irrawaddy at Ava. Within the limits of the dry zone besides the Chindwin the only considerable tributaries of the Irrawaddy are the Mu which flows from north to south between the Irrawaddy and the Chindwin and joins the former at Myinmu, and the Môn which enters the Irrawaddy to the north of Minbu.

Besides these there are numerous streams, such as the Salin, the Pin, the Yin, and the Sadôn, which in the rains assume at times the proportions of rivers, but in the dry weather are merely wide stretches of sand with the merest trace of water.

South of Prome, where outlying spurs from the Arakan Yoma on the west and the Pegu Yoma to the east approach closely to the river bank, the valley of the Irrawaddy opens out again; at Yegin Mingyi near Myanaung the influence of the tide is first felt and the delta may be said to begin. The so-called rivers of the delta, the Ngawun (on which stands the port of Bassein), the Pyamalaw, Panmawaddy, Pyinzalu, and Pantanaw are simply mouths of the Irrawaddy, and the whole country towards the sea is a network of creeks, where there are no roads, and boats take the place of carts for all purposes.

There is, however, one true river of some size, the Hlaing, which rises near Prome, flows southward and meets the Pegu river and the Pazundaung creek and thus forms the estuary which is known as the Rangoon river and constitutes the harbour of Rangoon.

The second river of Burma in point of size and importance is the Salween whose sources are believed to be situated at about the 32nd or 33rd parallel of latitude in the unexplored country east of Tibet. It enters British territory about eight degrees further south and thence flows in a generally southward direction through the Shan States and Karenni till it disgorges itself into the Gulf of Martaban near Moulmein. It is only navigable for less than the last hundred miles of its course. The remainder is so broken by gorges and rapids that boats can only ply on short detached reaches.

About midway between the valleys of the Irrawaddy and the Salween and flowing like them from north to south is the Sittang. The sources of this river, known also in its upper reaches as the Paunglaung, are in the valley between the Pegu Yoma and the Shan Hills in the Yamèthin District. Fed by affluents from the Yoma on the one hand and the Karen Hills on the other, it winds past the towns of Pyinmana, Toungoo and Shwegyin and finally enters the northern apex of the Gulf of Martaban at a point about equidistant from the ports of Rangoon and Moulmein. Its valley is followed by the Rangoon-Mandalay line of Railway.

The Gyaing and Ataran flow west and north from the mountains of Siam to unite at Moulmein with the Salween and form the harbour of Moulmein. Both are short rivers but are navigable by country boats almost to the frontier of Siam. The remaining rivers of Tenasserim, the Tavoy, the Tenasserim and the Pakchan are merely mountain streams and are none of them navigable for any distance.

Arakan has no rivers of any size but the coast line is pierced by a number of estuaries of which the most important are the Na-af which separates Northern Arakan from Chittagong, the Mayu, the Kaladan and the Lemru. The Mekong can hardly be said to form part of the river system of Burma but deserves mention as for a distance of fifty to a hundred miles it forms the boundary between the Shan States and French Indo-China.

Lakes.

5. The Indawgyi in the west of the Myitkyina District is the largest lake in Burma. It measures 16 by 6 miles and is bounded on the south, east and west by low ranges of hills but has an outlet to the north in the Indaw river. The Meiktilà lake near the town of Meiktila is artificial. The Inlè lake, near Yawnghwe in the Southern Snan States, is nearly as large as the Indawgyi, but has greatly diminished in size in recent times. In the Katha District is another Indaw which covers sixty square miles. Other lakes are the Paunglin lake in Minbu District, the Inma lake in Prome, the Tu and Duya in Henzada, the Shagegyi and Inyegyi in Bassein, the sacred lake at Mudôn in Tenasserim and the Nagamauk, Panzemyaung, and Walonbyan in Arakan. In the heart of the delta numerous large lakes or marshes abounding in fish are formed by the overflow of the Irrawaddy during the rainy season, but these either assume very diminutive proportions or disappear altogether in the dry season.

Soil.

6. A line drawn along the western bank of the Irrawaddy as far as Mandalay, and thence southwards again, along the foot of the Shan plateau, down the Sittang valley to the head of the Gulf of Martaban, may be said to divide Burma into its two main geological divisions. West of this line the formations are of Tertiary age; east of it they are far older, for the most part Archaean and Secondary, any Tertiary patches being purely local. From a geological point of view the most important mountain ranges to the west are the Chin Hills and Arakan Yoma, which are composed partly of sandstones, shales, and limestones, probably of Cretaceous age, but for the most part of rocks containing Tertiary fossils extending from the Nummulitic to the Miocene period; and the Pegu Yoma consisting of shales and sandstones of more recent formations than those of the Arakan Yoma, which overlie, apparently conformably, the Nummulitics on the eastern slopes of the latter range. The oldest known formations in the western division are the Chin shales found in the central parts of the Arakan Yoma. A more widely spread formation in this western area is the Nummulitic division, consisting of shales and sandstones capped by a bed of limestone, which is shallow in Lower Burma but increases in thickness towards the north, and is of very considerable depth in the neighbourhood of the Chin Hills in Upper Burma. The petroleum of the Province is found in the still younger sandstones of the Pegu (geological) Division. Coal and amber are present in the beds of this division, which contains a large proportion of the mineral wealth of the Province. These beds are of marine origin, but are overlaid by fluviatile layers of soft yellow sandstone (Miocene), containing concretions of exceedingly hard silicious sandstone and subordinate bands of ferruginous conglomerate, which cover a very large portion of the valleys of the Irrawaddy and the Chindwin. Volcanic activity during the deposition of the Tertiary formations in Upper Burma is responsible for the presence of jade and gold in the northern portions of the Province.

In the main eastern division the hilly country to the east of the Irrawaddy-Sittang valley (comprising the Ruby Mines District, the Shan States, and the Karen Hills) is almost entirely composed of rocks older than Tertiary, ranging from the Primary gneisses of pre-Cambrian age to Mesozoic (Jurassic or Cretaceous). The gneisses of the Ruby Mines District contain bands of crystalline limestone, in which rubies, sapphires and spinels occur. In the Northern Shan States the gneisses are followed southwards by a considerable thickness of mica schists, and dykes of tourmaline granite occur near the junction. In this area the formations have been found to belong to the Devonian, the Silurian, and Cambrian systems of geological sequence. The lowest beds consist of quartzites, greywackes, and slaty shales above which are Silurian strata composed of limestones, calcareous sandstones, and shales exceedingly rich in fossils. In certain localities beds of sandstone and conglomerates are found. The surface of the Shan plateau is a great thickness of limestone (Maymyo limestone) which extends from near Maymyo to the Salween. This limestone is generally greatly crushed and brecciated, and the fossils it contained have for the most part been destroyed, but there is reason to believe that it includes beds of Carboniferous as well as of Devonian age. In several different places on the surface of the plateau beds of shale are

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

found containing numerous fossils, the relation of which to the Maymyo limestone has not yet been clearly made out. To the east of Hsipaw a series of red sandstones with subordinate bands of limestone is largely developed, folded or faulted in among the Maymyo limestone. North and south of Lashio are beds containing thick seams of lignitic coal. In the Southern Shan States a great series of limestones, probably representing the Maymyo limestone has been found. Further south again in the Paunglaung range, east of the Sittang, the hills are composed chiefly of crystalline gneissic rocks. The hills separating Amherst, Tavoy and Mergui from the Siamese border appear to be a prolongation of the Paunglaung and neighbouring ranges. They consist of Palaeozoic beds belonging to what have been termed the Moulmein and Mergui groups, and of gneissic rocks. It is in these that the tin-bearing areas of the Province occur.

Climate.

7. In most parts of Lower Burma and in portions of the Upper Province the abundant rainfall renders the climate moist and enervating for nearly half the year, but in the dry zone which extends across the country between the 20th and 22nd degrees of north latitude and comprises, roughly speaking, the whole of the Magwe and Meiktila Divisions, the rainfall is less copious and the climate less humid. North of this dry belt again the rainy season is more marked; and the atmosphere though cooler than that of the dry zone, is also more saturated with moisture. The rainfall in the coast districts varies from about 200 inches in the Arakan and Tenasserim Divisions to an average of 90 in Rangoon and the adjoining portion of the Irrawaddy Delta. In the extreme north of Burma the rainfall is rather less than in the country adjoining Rangoon and in the dry zone the annual average falls as low as 20 and 30 inches. The temperature varies almost as as much as the rainfall. At Mergui on the Tenasserim coast the mean is 77·8 degrees (Fahrenheit) in January and 81·5 degrees in May. In Rangoon the mean temperature for the same two months is 76·7 degrees and 84·6 degrees. In Mandalay on the northern edge of the dry zone the corresponding figures are 70·2 and 88·9 degrees while at Bhamo in the Northern wet tract the mean temperature in January is 62·9 degrees and in May 83·2 degrees. Except in the dense forest tracts and the remoter portions of some of the outlying districts of Upper Burma, where malarious fever is prevalent, the Province is by no means unhealthy either for Europeans, or for the natives of the country.

Staples.

8. The staple products of the Province are rice and timber. Rice is practically the only crop grown in the deltaic districts and it is also produced in other parts of the Province on low-lying and irrigated lands and on hill-side clearings. It constitutes the food of the people generally, and is the chief article of export. Teak is plentiful in the forests on the sides of the different hill ranges and is extracted in large quantities for export along with other less valuable varieties of timber. Minor forest produce comprises cutch, lac, and various fibres. Fruits such as doorian, marian, mangoes, pineapple with betel-nut, betel-leaf and various vegetable oils are produced in Tavoy and Mergui, and exported to other parts of the Province. The *Ficus elastica* was a common tree in the hills in the far north of Burma and the rubber extracted from it by the Kachins formed an important article of export until the trees were nearly exterminated by wasteful methods of tapping. Within the last five years the cultivation of rubber on a commercial scale has been successfully commenced in the districts of Mergui, Tavoy, Amherst, Toungoo and Insein. Palm sugar is largely made by boiling down the sap of the palmyra and is used in the manufacture of fermented liquor and the local spirit known as arrack. Sesamum, maize, millet, pulses, cotton and ground-nuts are the chief crops in the dry zone of Upper Burma but wheat, sugar-cane and tobacco are also grown. In certain of the hill tracts tea and coffee are cultivated with moderate success.

POLITICAL.

Historical Summary.

Early history.

9. Linguistic and ethnographical researches combine to show that the original home of the Burmese race is to be found in the highlands of Central Asia and

that their earliest settlements in the country to which they gave their name were on the Upper Irrawaddy. From their first capital Tagaung, now a village on the east bank of the Irrawaddy, the immigrants divided into two bodies. The first went westward and after settling on the Chindwin found their way into the valley of the Kaladan river and there founded the Kingdom of Arakan which was only finally extinguished by the Burmese conquest at the close of the eighteenth century. The second body of settlers went southwards and founded the kingdom of Prome. The earliest known inhabitants of the southern half of Burma were the people called by the Burmans Talaings but by themselves Môn a branch of the Mon-Khmer race, whose capital was Thatôn. Wars between the Burmans and Talaings were of frequent occurrence and in 742 A.D. Prome was captured and destroyed by the Talaings. A new kingdom was founded with its capital at Pagan which till the thirteenth century remained the centre of the Burmese nation. The existing ruins of Pagan bear witness to the wealth and power of the people by whom these monuments were raised. The most famous of its kings was Anawrata who conquered the Talaings and annexed their country and who by bringing from the Talaing capital Thatôn a copy of the Buddhist scriptures became the founder of that religion among his countrymen. Pagan was destroyed by a Chinese invasion and from the 13th till the 16th century Burma was under the rule of a number of Shan and *quasi*-Shan chiefs with various capitals at Pinya, Sagaing and other places. From this confusion the rulers of Toungoo, in the early years of the sixteenth century, gradually emerge as kings of Burma. The most famous of them Tabin Shweti conquered the Talaings, for a time at least annexed Arakan, and ruled in splendour in his capital of Pegu.

Early European settlements in Burma.

10. It was in the days of the Toungoo dynasty that European countries first entered into commercial relations with Burma. In 1519 the Portuguese concluded a treaty with the King of Pegu and established factories at Martaban and Syriam. Towards the close of the 16th century the Dutch obtained possession of the island of Negrais, and about the year 1612 the English East India Company had agents and factories at Syriam, Prome and Ava, and perhaps Bhamo. About the middle of the seventeenth century all European merchants were expelled from the country owing to a dispute between the Burmese Governor of Pegu and the Dutch. The Dutch never returned. In 1688 the Burmese Governor of Syriam wrote to the English Governor of Madras inviting British merchants to settle in Pegu, and in 1698 a commercial resident was sent to Syriam and a factory was built there and others at Negrais and Bassein. The French also had a settlement at Syriam. Meanwhile the Burmese dynasty of Ava which had obtained supremacy throughout Burma under Bayinhaung, was harassed by inroads from China and Manipur, and finally destroyed by the rebellion of the Talaing Kingdom of Pegu. After some years of Talaing supremacy a new Burmese dynasty was established by Alaungpaya who succeeded in uniting his countrymen, the Burmese, and crushed the Talaings. In 1755 Alaungpaya founded Rangoon to celebrate his conquest of the Talaings and after a siege of some months captured and destroyed Syriam.

Extensions of Burmese rule under the last Burmese dynasty.

11. The English merchants at Syriam favoured the Burmans, and the French the Talaings, but both attempted to keep on friendly terms with the other side when it appeared likely to be successful. After Alaungpaya's success he found that the French had been supplying warlike stores to the Talaings, and he put all Frenchmen to death. Though the English had at times supported the Talaings, they were granted the island of Negrais and a factory at Bassein, but in 1759 they were again suspected of supplying arms to the rebels and the factories were destroyed, ten Englishmen and a hundred natives of India being murdered. In the following year Alaungpaya died while laying siege to Ayuthia, the capital of Siam, and the English obtained permission from his successor, Naungdawgyi, to re-establish the Bassein factory, though all compensation for the massacre was peremptorily refused. Sinbyushin, who succeeded his brother Naungdawgyi, took Manipur and Siam and defeated two inroads from China. He died in 1776 and was succeeded by his brother Bodawpaya who conquered Arakan in 1784. This brought Burma into collision with the British in Chittagong. The Arakanese

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

outlaws took refuge over the border and harassed the Burman rulers by inroads from British territory. This gave rise to friction and in order to assist in the adjustment of matters in dispute an envoy was sent to Burma in 1795 by the Governor-General of India.

First Burmese War.

12. In 1796 a Resident was deputed to Rangoon. In 1819 Bodawpaya died and was succeeded by his grandson Bagyidaw. Matters had not improved on the border, and in 1824 the Burmese invaded Manipur and Assam, and Maha Bandula, the great Burmese General, started with an army from Ava to take command in Arakan and invade Bengal. The British Government finally declared war against Burma on the 5th March 1824. The Burmese were driven out of Assam, Kachar, and Manipur, and Rangoon was occupied by a force which was detailed for the main invasion. The troops suffered much from sickness as soon as the rains began, and all movements by land became impracticable. Between August and November, Mergui, Tavoy, Martaban and Pegu were occupied. In December the British force occupying Rangoon had been reduced by sickness and detached expeditions to about 1,300 Europeans and 2,500 Natives fit for duty. The Burmese under Maha Bandula made a determined effort to drive the invaders into the sea. A Burmese army, said to have numbered 60,000 men, surrounded the position and advanced to the attack. The attack was repulsed with great slaughter and the Burmese army dwindled away, a portion of it retiring to Danubyu which Maha Bandula fortified with great skill for a further effort. The British troops having been reinforced marched up the valley of the Irrawaddy, and on the 2nd April 1825 took Danubyu. Maha Bandula was killed in the cannonade and with his death all serious resistance came to an end. Prome was occupied on the 5th April and the troops went into cantonments for the rains. Meanwhile a second British army had occupied Arakan with the intention of crossing the Yoma into Burma from the west, but owing to the difficulties of the country and the unhealthiness of the climate this scheme was abandoned.

Annexation of Assam, Arakan and Tenasserim.

13. In September 1825 the Burmese endeavoured to treat, but as they would not agree to the terms offered hostilities recommenced, and in December the British advanced and, after several actions with the Burmese troops, reached Yandabo on the 16th February. Here the envoys of the King signed a treaty ceding to the British Assam, Arakan, and the coast of Tenasserim, and agreeing to pay a million sterling towards the expenses of the war. Rangoon was retained by the British until the end of the year, when the second instalment of the indemnity was paid. The British rebuilt Moulmein, which became the capital of the new British province of Tenasserim. In November 1826 a commercial treaty was signed at Ava, but it was not till 1830 that a Resident was appointed at Ava under the Treaty. In 1837 Bagyidaw was deposed by his brother Tharrawaddy who in 1846 was succeeded by his son Pagan *Min*.

Second Burmese War.

14. In 1852, owing to a series of outrages committed on British subjects by the Burmese Governor of Rangoon, for which all reparation was refused, the British again declared war against the King of Burma, and towards the close of the same year Lord Dalhousie proclaimed that the whole of the province of Pegu, as far north as the parallel of latitude six miles north of the fort at Myedè, was annexed to the British Empire. Almost immediately after this Pagan *Min* was deposed by his brother Mindon *Min*, who ruled his curtailed kingdom with wisdom and success. The pacification of Pegu and its reduction to order occupied about ten years of constant work. In 1862 Her Majesty's possessions in Burma, namely, the Provinces of Arakan, Pegu, Martaban, and Tenasserim, were amalgamated and formed into the Province of British Burma under the administration of a Chief Commissioner. Lieutenant-Colonel Phayre was appointed the first Chief Commissioner of British Burma.

Accession of King Thibaw.

15. In 1867 a treaty was concluded at Mandalay between the British and Burmese Governments, providing for the mutual extradition of criminals, the free intercourse of traders and the establishment of permanent diplomatic relations

between the two countries. In October 1878 King Mindon died and was succeeded by his son King Thibaw. Early in 1879 the execution of a number of the members of the Royal Family at Mandalay excited much horror in Lower Burma, and relations between the two countries were much strained owing to the indignation amongst Englishmen at the barbarities of the Burmese Court, and the resentment in the minds of the King and his courtiers at the attitude of the British Resident. In October 1879 owing to the unsatisfactory position of the British Resident in Mandalay the Government of India withdrew their representative from the Burmese Court. During the reign of King Thibaw matters drifted from bad to worse. The Central Government lost control of many of the outlying districts and the elements of disorder on the British frontier were a standing menace to the peace of the country. The Court, in contravention of the express terms of the treaty of 1867 created monopolies to the detriment of the trade both of England and Burma. An Embassy visited Simla in 1882, but the attempt to restore cordial relations was fruitless. The King abruptly recalled his Envoy while negotiations were going on. While the Indian Government was unrepresented at Mandalay, representatives of Italy and France were welcomed and two separate Embassies were sent to Europe for the purpose of contracting new and, if possible, close alliances with sundry European powers. Matters were brought to a crisis towards the close of 1885, when the Burmese Court imposed a fine of, in round numbers, 23 lakhs of rupees upon the Bombay Burma Trading Corporation and refused to comply with a suggestion of the Indian Government that the cause of complaint should be investigated by an impartial arbitrator.

Annexation of Upper Burma.

16. In view of the long series of unsatisfactory episodes in the British relations with Burma during King Thibaw's reign, the Government of India decided to adjust once for all the relations between the two countries. An ultimatum was despatched to King Thibaw requiring him to suspend action against the Corporation, to receive at Mandalay an Envoy from the Viceroy, who should be treated with the respect due to the Government which he represented, and to regulate the external relations of the country in accordance with the advice of the Government of India. This ultimatum was despatched on the 22nd October 1885. On the 9th November a reply was received in Rangoon amounting to an unconditional refusal of the terms laid down. On the 7th November King Thibaw issued a proclamation to his subjects calling on them to drive the British heretics into the sea. On the 14th November 1885 the British expedition crossed the frontier and advanced to Mandalay without encountering any serious resistance. Ava was reached on the 26th November and an Envoy from the King signified his submission. On the 28th November the British occupied Mandalay, and the next day King Thibaw was sent down the river to Rangoon, whence he was afterwards transferred to India. Upper Burma was formally annexed on the 1st January 1886 and the work of restoring the country to order and introducing settled Government commenced. For some years the country was disturbed by the lawless spirits who had been multiplying under the late regime, but by the close of 1889 all the larger bands of marauders were broken up, and since 1890 the country has enjoyed greater freedom from violent crime than the Province formerly known as British Burma.

Relations with Siam.

17. The history of the relations of Burma with Siam is principally concerned with the efforts made to preserve the peace of the frontier and to secure protection for British subjects travelling in the Siamese Province of Chiengmai which borders on Burma. A treaty to secure these objects was concluded with the King of Siam in 1874. On its failure to effect what was desired and after a mission to Chiengmai by an officer of the British Burma Commission a second treaty was concluded in 1883 which provided, among other matters, for the issue of passports, the extradition of criminals, the trial in Siam of cases in which British subjects were concerned, and the working of forests in Siam by British subjects. In November 1885 a supplementary article to this treaty was signed

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

providing for the extradition of criminals between Burma and all the conterminous parts of Siam. In 1884 a British Vice-Consul was appointed to and arrived at Chiengmai. In 1911 a fresh Extradition Treaty was concluded between Great Britain and Siam and on the 10th November 1911 an Order in Council was passed applying the Extradition Acts, 1870 to 1906 to Siam and Siam then became a Foreign State for the purposes of the Indian Extradition Act, 1903. An Order in Council of 1889 prescribes the registration of all British subjects resident in Siam and regulates the exercise of Civil and Criminal jurisdiction by Consular Courts. This was superseded by the Siam Order in Council, 1906, for the regulation of the same matters which is still in force. Our relations with Siam have continued friendly up to the present time. For some years after the annexation of Upper Burma there was a discussion with regard to the boundary between Siam and the trans-Salween territory of certain Shan States. The Siamese claimed trans-Salween Karenni and some other small States to the east of the Salween as part of the Province of Chiengmai. In order to investigate these claims the territory was visited by Mr. Ney Elias in 1890. The Siamese refused to take part in his exploration, but in 1892-93 a Joint Commission of English and Siamese Officers demarcated the frontier along the line selected by Mr. Ney Elias.

Relations with China.

18. The records of China and Burma, generally speaking, corroborate each other in recounting a long series of wars between the two countries prior to the accession of Alaungpaya. From the year 1790 complimentary presents were exchanged between the Burmese and Chinese Courts with more or less regularity every ten years or thereabouts. At the time of the annexation negotiations were opened with China on the subject of our relations with that country through Upper Burma. The Chinese manifested a friendly spirit in these negotiations. A convention signed at Pekin on the 24th July 1886 provided, amongst other matters, for the continuance of the decennial missions, the recognition by China of British Rule in Burma, the delimitation of the frontier, and the encouragement of international trade. In the course of subsequent negotiations it was agreed that the decennial mission should be abandoned. A convention was signed on the 1st March 1894 which defined the boundary along a prescribed line. The convention went on to waive British rights in the trans-Salween States of Mönglem and Kēng Hung with the proviso that the Chinese Government should not cede these territories to any other nation without previously coming to an agreement with the British Government. The convention contained further articles designed to promote free intercourse and to encourage trade between Burma and China. Finally it provided for the demarcation of the boundary on the ground by a Joint Commission. In the following year the Chinese infringed this convention by ceding a part of Kēng Hung to France in derogation of its provisions. This breach of treaty led to the conclusion of a supplementary agreement with China on the 4th February 1897, which defined the boundary afresh in a sense more liberal to British claims than the convention of 1894, and made further provision for opening China to trade. These concessions were made by China in consideration of the British Government waiving its objections to the breach by China of the convention of 1894. The provision for the demarcation of the boundary on the ground by a Joint Commission remained in force, and in accordance with it the demarcation was carried out by a British and a Chinese Commissioner, aided by Sub-Commissioners, between November 1897 and May 1900. The Commissioners demarcated the boundary from latitude 25° 35′ to latitude 23° 28′ and from latitude 22° 9′ to latitude 21° 46′. The frontier north of latitude 25° 35′ and the section lying between latitude 23° 28′ and latitude 22° 9′ have not yet been demarcated. This latter part of the frontier borders on the Wa States which are inhabited by hostile and practically independent tribes. A commencement was made with demarcation in the winter of 1899-1900 but owing to the hostility of the Was and to differences between the Commissioners it was found impossible to complete the work. The Bhamo and Myitkyina Districts and the Northern and Southern Shan States are the parts of Burma which march with China. On the Chinese side of the border with the Shan States and with the Bhamo District

are situated a number of Shan States and Kachin tribes which are not under direct Chinese administration and in some cases are under very imperfect control. The Myitkyina District in the north borders on the Yünnan Province of China proper. Border disputes are as a rule settled at annual meetings of British and Chinese Officers at some spot near the frontier and relations are on the whole friendly. A British Consul is stationed at Têngyüeh the Chinese town through which the bulk of the Burma-China trade passes and which is only a few marches distant from the frontier. A station of the Chinese Maritime Customs is also established there. The presence of these officers is useful in facilitating intercourse with the Chinese local administration and in protecting trade from the illegal exactions which used to harass it in former times.

Form of Administration

Lieutenant-Governor and Council.

19. In 1897 the Province, which had formerly been administered by a Chief Commissioner, was raised to a Lieutenant-Governorship. By section 3 of the Burma Laws Act, 1898, Burma was defined as the territories for the time being administered by the Lieutenant-Governor of Burma. The Lieutenant-Governor also exercises political control over Karenni, a tract of country consisting of several petty States situated between Burma and Siam and lying outside of British India, which are in subordinate alliance with the British Government. A Legislative Council consisting of nine members with the Lieutenant-Governor as President was constituted in 1897. In 1909 the number of members was raised under the provisions of the Indian Councils Act, 1909, to fifteen, with the Lieutenant-Governor as President. One member is elected by the Burma Chamber of Commerce, and the remaining fourteen are nominated by the Lieutenant-Governor with the sanction of the Governor-General. Not more than six members may be official; the rest must be non-officials and at least four must be selected from the Burmese population, one from the Indian and one from the Chinese community.

Administrative Divisions—Shan States.

20. The primary administrative division of Burma is into Upper Burma, including the Shan States and the Chin Hills, and Lower Burma. The Shan States are administered by the Chiefs of the States subject to the supervision of the Superintendents in the case of the Northern and Southern Shan States, and to the supervision of the Commissioners of the adjoining divisions in the case of the other States. By section 11 of the Burma Laws Act, 1898, the civil, criminal, and revenue administration of every Shan State is vested in the Chief of the State subject to the restrictions specified in the *sanad* or order of appointment granted to him. Under the same section the law to be administered in each State is the customary law of the State, so far as it is in accordance with justice, equity, and good conscience, and is not opposed to the spirit of the law in force in the rest of British India. Power to appoint officers to take part in the administration of any State and to regulate their powers and proceedings is vested in the Government.

Chin Hills.

21. In Burmese times the Chin Hills of Upper Burma were independent of external control. After the annexation they were gradually brought under administration and in September 1895, were formally declared to be part of the Province of Burma. They are administered by a Superintendent, and the law in force in them is contained in the Chin Hills Regulation, 1896. So far as persons other than Chins are concerned, the law is the same as the law in force in Upper Burma. So far as Chins are concerned, the criminal law is the same, with a few modifications, as the law of Upper Burma. The Chin Hills form a Sessions division and a district and the Superintendent is the Sessions Judge. The revenue and general law of Burma does not apply to Chins, a race in a low stage of civilisation. These matters are regulated for them by a few simple provisions in the Chin Hills Regulation, 1896, and the rules thereunder. A small portion of the Chin Hills called the Pakôkku Hill Tracts is outside the jurisdiction of the Superintendent and is administered under the supervision of the Commissioner of the Magwe Division.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

Upper Burma.

22. Upper Burma, exclusive of the Shan States, is a scheduled district. The law in force there is closely assimilated to that in force in Lower Burma, the Acts which are in force in Upper Burma being specified in the first schedule to the Burma Laws Act. The rest of this section applies, except where the contrary is stated, to Upper Burma exclusive of the Shan States and the Chin Hills, and to Lower Burma.

Commissioners.

23. The Chief Executive Officers under the Lieutenant-Governor are eight Commissioners of divisions, four in Lower Burma and four in Upper Burma. Commissioners in Upper Burma and the Commissioner of the Arakan Division are *ex-officio* Sessions Judges in their several divisions and have civil powers under the Upper Burma Civil Courts Regulation, 1896, and the Lower Burma Courts Act, 1900, respectively. The other three Commissioners in Lower Burma have been relieved since 1905 of all judicial work, civil and criminal. All Commissioners have powers as Revenue Officers under the Burma Land and Revenue Act, 1876, and the Upper Burma Land and Revenue Regulation, 1889. They are also responsible to the Lieutenant-Governor, each in his own division, for the working of every department of the public service except the Military Department and the branches of the administration directly under the control of the Supreme Government. Certain of them also supervise certain Shan States adjoining their divisions and the Commissioner of the Magwe Division superintends the Pakôkku Hill Tracts.

Other Executive officers.

24. Under the Commissioners are 39 Deputy Commissioners including the Police Officers in charge of the Hill District of Arakan and the Salween District who exercise the powers of a Deputy Commissioner. Deputy Commissioners perform the functions of District Magistrates, Collectors and Registrars except in Rangoon where there is both a District Magistrate and a Collector. In Upper Burma districts except Mandalay, and in the less important districts of Lower Burma the Deputy Commissioner is also District Judge. Deputy Commissioners are responsible for many miscellaneous duties which fall to the principal District Officer as the representative of Government. Subordinate to the Deputy Commissioners are Assistant Commissioners, Extra Assistant Commissioners and Myoôks, who are invested with various magisterial, civil, and revenue powers and hold charge of the townships, as the units of regular civil and revenue jurisdiction are called, and the subdivisions of districts into which most of these townships are grouped. Among the salaried staff of officials the Township Officers are the ultimate representatives of Government who come into most direct contact with the people. Two appointments of Deputy Commissioner are open to the Provincial Service.

Village system.

25. Finally, there are the headmen of village-tracts, assisted in Lower Burma by *Sè-eingaungs* (rural policemen in charge of ten houses), and in Upper Burma by elders variously designated. Similarly in the towns there are headmen of wards and elders of blocks. The system of revenue collection through the agency of headmen is being steadily developed. In Lower Burma the land revenue and other district taxes were at one time collected by circle *thugyis* in charge of large groups of villages, but these circle appointments are now, with rare exceptions, being abolished as they fall vacant from death, retirement, or other cause. The *Myothugyis* in Upper Burma, who had in some instances been entrusted with this work, will similarly disappear in the course of a few years. The headmen are remunerated by commission on the amount of revenue which they collect.

Revenue Administration.

26. The revenue administration of the Province is controlled by a Financial Commissioner assisted by two Secretaries. Subordinate Departments are in charge of a Commissioner of Settlements and Land Records, a Director of Agriculture, a Superintendent of the Civil Veterinary Department and a Registrar of Co-operative Credit Societies. In each of these departments there is a subordinate departmental staff.

Judicial Administration.

27. The administration of Civil and Criminal Justice is under the control of the Chief Court, Lower Burma, with five Judges, and of the Judicial Commissioner, Upper Burma. Purely Judicial Officers include six Divisional and eight District Judges, and there are also separate Provincial and Subordinate Judicial Services. Divisional Judges are also Sessions Judges, while District Judges confine themselves mainly to the exercise of civil jurisdiction. As regards the appointment of District Judges, the scheme for the separation of executive and judicial functions extends to the more important districts of Lower Burma and to the Mandalay District. It does not extend to Kyaukpyu, Sandoway, Salween, Tavoy, Mergui or Thayetmyo, where the Deputy Commissioner continues to perform *ex-officio* the duties of District Judge; to Rangoon where the Chief Court takes the place of the District Court; or to the Hill District of Arakan which is under a special law. In the remaining fourteen districts of Lower Burma the Deputy Commissioner has no concern with civil justice. In five cases two, and in one case three, districts are grouped under one District Judge, who spends part of his time in each. Besides their civil jurisdiction District Judges are invested with powers under sections 30 and 34 of the Code of Criminal Procedure, 1898, in order that they may partially relieve Deputy Commissioners of the burden of criminal work, and they are also empowered to hear appeals from second and third class Magistrates. Two of the appointments of District Judge are open to members of the Provincial Service. The Chief Court is the highest Civil Court of appeal and the highest court of criminal appeal and revision for Lower Burma. It is also the High Court for the whole of Burma (including the Shan States) in reference to proceedings against European British subjects. It is the principal civil and criminal Court of original jurisdiction for Rangoon Town, and hears appeals from all sentences of Courts or Magistrates exercising jurisdiction in Rangoon Town. It has within Rangoon Town the powers of a Court for the relief of insolvent debtors under the Presidency Insolvency Act. In criminal and civil matters the Judicial Commissioner, Upper Burma, exercises, in Upper Burma, the powers of a High Court for appeal, reference, and revision, except in respect of criminal cases in which European British subjects are concerned. All village headmen have limited magisterial powers and a considerable number are also invested with civil jurisdiction to a limited extent.

Public Works.

28. Besides the General, Revenue and Judicial Services mentioned in the preceding paragraphs the several auxiliary branches of the Administration may be briefly noticed. The Public Works Department is under the joint control of two Chief Engineers who are also Secretaries to Government in the Public Works Department for their respective branches of work. There are seven Superintending Engineers (including one for Irrigation and a Sanitary Engineer), eighty-three Executive and Assistant Engineers, seven Temporary Engineers, and five Honorary Assistant Engineers.

Police.

29. The superior staff of the Police Department consists of an Inspector-General of Police, four Deputy Inspectors-General, one of whom holds the appointment of Commissioner of Police, Rangoon, a Superintendent of Police Supplies, 44 District Superintendents, 42 Assistant Superintendents and 39 Deputy Superintendents. The Military Police are officered by a Deputy Inspector-General, 2 Adjutants, 12 Commandants, 4 Assistant Adjutants and 37 Assistant Commandants.

Medical.

30. The control of the Medical Department is vested in an Inspector-General of Civil Hospitals, who is a Colonel in the Indian Medical Service. Under his supervision are 41 Civil Surgeoncies. There are also a Sanitary Commissioner and a Deputy Sanitary Commissioner, an Inspector-General of Prisons, three whole-time Superintendents of Prisons, a Chemical Examiner and Bacteriologist and a Superintendent of the Rangoon Lunatic Asylum, all of whom belong to the Indian Medical Service and five superior appointments at the Rangoon General Hospital, of which four are held by officers of the Indian Medical Service and one by a private practitioner on special agreement. The supervision of sanitatio

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

and the charge of prisons other than the three whole-time jails and of the Minbu Lunatic Asylum are undertaken by Civil Surgeons and other Medical Officers in addition to their medical duties.

Forests.

31. The Forest Department is administered by a Chief Conservator, four Conservators and 61 Deputy and Assistant Conservators. There are also Provincial and Subordinate Forest Services.

Excise.

32. The Excise Department is under the control of the Financial Commissioner as Chief Revenue authority. There is an Excise Commissioner drawn from the ranks of Deputy Commissioners, a Chief Superintendent, 29 Superintendents and a Departmental staff.

Ports.

33. The Port Officer, Rangoon, is styled Principal Port Officer, Burma, and is the Head of the Marine Department. The Principal Port Officer, the Port Officers of Moulmein, Bassein, and Akyab, and the Marine Transport Officer, Mandalay, are recruited from the Royal Indian Marine. There are two Assistant Port Officers at Rangoon, one of whom belongs to the Royal Indian Marine, and there is a staff of Engineers at Rangoon and Mandalay. River conservancy is in charge of an Assistant Conservator. At minor ports the Deputy Commissioner is Port Officer.

Customs.

34. The Financial Commissioner is *ex-officio* the Chief Customs authority. There is a Chief Collector of Customs at Rangoon. At other ports the Port Officer, or the Deputy Commissioner, and at Victoria Point the Subdivisional Officer, is *ex-officio* Collector. There are two Assistant Collectors of the Imperial Service at Rangoon, and one each at Moulmein and Akyab, belonging to the Provincial Service.

Education.

35. At the head of the Education Department is the Director of Public Instruction with an Assistant Director. There are six Inspectors of Schools belonging to the Imperial, and one belonging to the Provincial Educational Service, and seven Assistant Inspectors belonging to the Provincial Service. The staff of the Rangoon College includes a Principal and five Professors drawn from the Imperial Service, to which the Principals of the Government Schools at Rangoon and Moulmein also belong. The Educational Syndicate is a body outside of the Education Department, which has for its object the promotion of education throughout the Province. It receives a grant from Government.

Ecclesiastical.

36. There is a Bishop of Rangoon under whose charge are eleven Government Chaplains. One of the Chaplains acts as Archdeacon and Bishop's Commissary. Allowances are granted by Government to nine clergymen not on the Ecclesiastical Establishment.

Local Self-Government.

37. There are 31 Municipal towns in Lower Burma and 15 in Upper Burma Seventeen smaller towns, eight in Lower Burma, six in Upper Burma and three in the Shan States, have been constituted Notified Areas, or minor Municipalities, under the Burma Municipal Act, 1898. In twelve of the Lower Burma Municipalities and in Mandalay some of the members of the Municipal Committee are elected. In the remainder all the members are appointed by the Lieutenant-Governor or the Commissioner of the division.

Miscellaneous.

38. The Accounts Department is controlled by an Accountant-General assisted by two Deputy and five Assistant Accountants-General. The Province of Burma forms one of the circles of the Indian Telegraph Department and is under the charge of a Director assisted by three Superintendents and five Assistant Superintendents. The Post Office is managed by a Postmaster-General and fourteen Superintendents of Post Offices.

Tenures of Land (Lower Burma).

Modes of acquiring ownership.

39. In Lower Burma rights over land in the rural tracts are acquired under the Lower Burma Land and Revenue Act, II of 1876, which gave the force of law to the customary modes of acquisition found in use when the Province came under British rule. A permanent, heritable, and transferable right of use and occupancy in land is acquired under that Act either by continuous occupation for twelve years combined with regular payment of land revenue, or by a specific grant from the State. With the exception of 12,856 holdings, aggregating 165,489 acres held on grants issued prior to 1876 under special rules, and of four grants totalling 43,351 acres issued on special terms, all occupied land in Lower Burma (8,927,532 acres comprised in 1,430,148 holdings) is held under one or other of these two tenures. The past ten years have been noteworthy for an extraordinarily great and rapid increase in the area under cultivation principally in the Pegu and Irrawaddy Divisions. In the earlier years of the decade grants were issued freely to applicants, but difficulties in connection with the disposal of the applications and the discovery of abuses have led in recent years to a restriction in the numbers issued and cultivators desirous of fresh land now usually take possession of it as squatters and acquire the permanent, heritable, and transferable right of a landholder by continuous occupation. Land which has been the subject of a grant is exempted from the payment of revenue for a period of years determined by the nature of the soil and the expense necessary to bring it under cultivation. The grantee is in all cases required to bring a certain proportion of the land under cultivation within a fixed period and he is forbidden without the previous sanction of the Deputy Commissioner to alienate or mortgage his interest in the land for a period which usually extends to five years after the date on which the land becomes assessed to revenue. Breach of the conditions entails the cancellation of the grant and the resumption of the land. The object of these provisions is to prevent the transfer to non-agriculturists of lands originally granted to cultivators and with the same object in view the power which Government retains of ejecting squatters who have not completed their title as landholders by a twelve years' occupancy of and payment of revenue on land is frequently exercised in the case of lands which have fallen into the hands of non-agriculturists.

Classes of landholders: Tenants.

40. The declared aim of the revenue policy of the Government of Burma is the retention of the land in the hands of a peasant proprietary. During the past ten years it has become increasingly difficult to carry out this policy owing to the great increase in cultivation and the rise in the price of paddy which have rendered land an attractive investment for capitalists. In the Insein, Syriam and Pegu Districts which from their contiguity to Rangoon are peculiarly liable to be affected by such influences and to a lesser extent in the districts of the Irrawaddy Division considerable areas of cultivated land have passed into the possession of non-resident and non-cultivating owners and are worked by their tenants. Another source of disquiet was that a large proportion of the non-resident owners were of non-Burman nationality and had thus no interest in their land or tenants save the extortion of as large an income as possible from them. As a remedy for these conditions a Land Alienation Bill was drafted, the principal provisions of which were the prohibition of the transfer of land to a non-agriculturist without the sanction of a Revenue Officer and the restriction of mortgages to such forms as are calculated to ensure the return of the land after a certain period to its original owner. Subsequent enquiries in the districts where the evils which it was designed to remedy were considered to be most rampant disclosed the fact that the conditions were not so serious as had been represented, and insuperable difficulties were discovered in working the proposals of the Bill. For these reasons it has been decided to abandon legislation in this direction.

The latest statistics as to tenancies in Lower Burma show that of a total cultivated area of 9,302,442 acres 2,840,030 were let to tenants at full rents while the total amount paid as rent was Rs. 4,14,01,393 or an average of Rs. 14·58 per

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

acre. The number of permanent tenants who cultivate the same land for a period of years is in Burma very small. Most of the tenants belong to the fluctuating class, tenants one year and labourers the next, working their lands as tenants only for a single year, and generally dependent on their landlords for advances to meet the cost of living and cultivation. There is also an intermediate class of cultivators who own some cattle and perhaps a little capital and who cultivate the same land for two or three years and then move on either to a fresh tenancy or because they see an opportunity of establishing themselves as landholders. Consideration of the condition of tenants naturally accompanied that of the transfer of land from the possession of the cultivating classes. A Tenancy Bill was drafted and introduced into the Legislative Council; its principal provision empowered a Revenue Officer to give to tenants of a rack-renting or otherwise oppressive landlord the status of protected tenants entitled to occupy their holdings permanently subject to payment of a rent which could not be enhanced without the sanction of a Revenue Officer and might not in any case exceed a fixed proportion of the produce of the land. Consideration and discussion have brought to light numerous objections to the enactment of any Bill on these lines and it has been decided to suspend Tenancy legislation for the time and to devote attention to other methods for the improvement of the condition of tenants. The principal of these other methods are the enforcement of the provisions of the Code of Civil Procedure which protect seed-grain and other property of an agriculturist from attachment for debt, the bringing of new tracts under cultivation by a system of colonisation with the object of creating on them a peasant-proprietary, and more especially co-operation through the agency of Co-operative Credit Societies.

Town and village lands.

41. Rights over lands in towns and villages are regulated under the provisions of the Lower Burma Town and Village Lands Act, Burma Act IV of 1898. Landholder's right in land in towns and villages is defined as a permanent heritable and transferable right of use and occupancy in land subject to the payment of land revenue and taxes to Government and to the reservation in favour of Government of all minerals in or under the land. In the case of land occupied at the date of the commencement of the Act, landholders' rights are acquired in the same way as in the case of cultivated land by continuous possession for twelve years, but after the commencement of the Act, landholders' rights can only be acquired in towns and villages by continuous possession for twelve years under a license from Government. These provisions do not apply to the towns of Rangoon, Moulmein, Akyab, Bassein and Prome where the pre-existing special methods of acquiring rights over land remain in force. In the last three towns any person is deemed a landholder who can prove continuous possession from some thirty to fifty years prior to the passing of the Act.

Tenures of Land (Upper Burma).

Tenures of land.

42. The law which regulates tenures of land in Upper Burma is the Upper Burma Land and Revenue Regulation, III of 1889, which came into force on the 13th July 1889. The primary division of all lands in Upper Burma is into (*a*) State land, (*b*) non-State land.

State land.

43. "State land" is defined in section 23 of the Upper Burma Land and Revenue Regulation. It means land belonging to, or at the disposal of, the State and includes the following:—

(*a*) Land previously termed royal land, *e.g.*, *Lèdaw*, *Ayadaw*, *Lamaingmye*.

(*b*) Land previously held on condition of rendering public service or as an appanage to, or emolument of, a public office, *e.g.*, *Ahmudansa*, *Si-sa*, *Thugyisa*, *Wunsa*, *Min-mye*.

(*c*) Islands and alluvial formations in rivers.

(*d*) Waste land and land included within reserved or village forests, and

(*e*) Land which had been under cultivation but had been abandoned, and to the ownership of which no claim was preferred within two years from the 13th July 1889.

It has also been held to include village communal lands (*Athi* or *Asu*) which are periodically distributable or distributed by the officer in the village who represents the State.

In the case of lands coming under heads (*a*), (*b*) and (*c*) the British Government simply assumed the rights enjoyed by the Burmese Kings. In the case of lands coming under (*d*) and (*e*) it has done more than this. The Kings of Burma were not ordinarily in a position to assert an effective claim over waste land brought under cultivation; speaking generally, any person was at liberty to till waste land, and, on bringing it under cultivation, he acquired rights over it which in time became ancestral (*bobabaing*) and heritable and resembled in other ways those of private ownership. But outright sales of lands were rare and contrary to custom, and private or exclusive proprietary rights could not be acquired over lands in the large tracts of country in which the village communal tenures survived. The British Government under the Regulation of 1889 declared itself the owner of all waste land and no such land may be cultivated except in accordance with rules under the Regulation. These rules provide for the grant of leases of waste land for any period not exceeding 30 years and for the grant of permits to occupy such land temporarily. Cultivators wishing to take up waste land are at liberty to adopt either of these methods of acquisition. The rules, which are modelled on those in force in Lower Burma, provide for the levy of revenue on areas leased and occupied, and for the temporary exemption from revenue of areas which have to be cleared of forest growth, shrubs or grass, before they can yield a crop. Leases have not, however, become popular in Upper Burma and waste land is usually cleared and occupied without title. The table in the margin shows the number of holdings and the area of State land comprised therein under the three most important heads.

—	Holding.	Area.
	No.	Acres.
Communal land ...	37,971	227,904
Special Grants ...	889	9,939
Other State land ...	686,647	2,258,360
Total ...	725,507	2,496,203

Non-State land.

44. Non-State land has not been defined and its incidents—other than liability to the payment of land revenue—have not been authoritatively described. It is land other than State land and has been held to include—

(i) lands cleared for cultivation before the 13th July 1889 and still in possession of the clearers (*dama-u-gya* land);

(ii) lands cleared before the 13th July 1889, and in the possession of the clearers or of their heirs or assigns for valuable consideration (*bobabaing* lands);

(iii) lands granted in ownership by written order of the Burmese King, or of the Local Government.

The total area of non-State land is estimated at 5,476,141 acres, comprised in 1,925,249 holdings, more than one of which may belong to the same owner.

Tenants.

45. The tenants of land in Upper Burma are of two classes; those who rent State land from a State land occupant, and those who rent non State land. Save in the irrigated tracts of the Mandalay and Kyauksè Districts, rents are usually fixed by custom, and vary from one-tenth of the gross produce on very poor soil to one-half the produce on good rice land. The rent thus varies according to the result of the harvest and tenants are usually in as favourable circumstances as small peasant proprietors. Tenants usually enjoy a reasonable fixity of tenure, there is little or no oppression or rack-renting, and there is nothing in the present circumstances of tenants or in the conditions of tenancy to call for the interference of Government although in the discussion of the proposed tenancy legislation it was decided to include Upper Burma within its scope. The only landlord classes in Upper Burma distinct from the remainder of the population are a small community in the Salin Subdivision of the Minbu District known as *thugaungs* (equivalent to

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

"Aristocrats") and the relations and ex-ministers and officials of the Burmese Kings in Mandalay, Kyauksè and Sagaing.

Town lands.

46. Town lands in Upper Burma are administered under the Upper Burma Land and Revenue Regulation, III of 1889, and rules for the disposal of State waste lands in towns and civil stations which were published in 1899.

General.

Tenure holdings.

47. According to the latest statistics the areas of land occupied by the various classes are as follows:—

		Acres.
Area occupied by agriculturists ...	...	14,493,627
Area occupied by non-resident non-agriculturists	...	1,596,839
Area occupied by resident non-agriculturists	...	972,044
Total area occupied	...	17,062,510

In these statistics the test of non-residence is not the same throughout the Province. In Lower Burma the surveyor's charge is commonly taken as the unit of residence but in Pyapôn it is the village-tract. In Upper Burma it is usually the village-tract but in the Lower Chindwin it is the surveyor's charge and in Shwebo it is the district.

System of Survey and Settlement (Lower Burma).

Cadastral Survey.

48. The system of survey adopted in the Province is that of a connected theodolite exterior survey and a field-to-field interior survey on the scale of 16 inches to the mile. The country to be surveyed is first divided into large circuits or polygons. The geographical position of each polygon is ascertained with perfect precision and the included area carefully computed. Each of these large circuits or polygons is again subdivided into minor circuits or lesser polygons, the geographical position and area of each of which are determined with the same accuracy. Then within these minor polygons come the *kwins*, which in Burma correspond in many ways to the *mauzas* of Northern India. These *kwins* are the smallest polygons, rarely exceeding 1 to 1½ square miles in area. They are not private estates or properties as the Indian *mauzas* are, but simply village blocks of cultivation and waste of convenient size, enclosed as frequently as may be possible within natural boundaries, and they are dealt with just in the same way as the larger polygons. Proceeding thus from the greater to the less, the margin of possible error is being constantly narrowed. The mathematically ascertained area of the large circuits must be found to be equal to the total of the areas of the included smaller circuits; and until perfect agreement is obtained by repeated check processes, neither the larger nor the smaller areas are accepted; and so on down to the very unit of survey, which is the field. The field in Burma is an area of rice or other cultivated land included within well-marked boundaries such as embankments or hedges. Its area varies from 1 acre in the great alluvial plains of the lower delta to ¼ acre in the closely cultivated tracts of the Prome and Thayetmyo Districts towards the apex of the delta. The aggregate of the field areas within each *kwin* must agree with the area of the *kwin* polygon, and until this agreement is attained, the areas of the fields are not accepted. It will thus be seen that the method of cadastral survey is calculated to guarantee scientific accuracy in every detail.

Supplementary Survey.

49. The Land Records Department maintains the annual survey and assessment in the cadastrally surveyed districts. The changes and extensions in cultivation, ownership, topography, etc., are annually depicted on fresh copies of the *kwin* maps, and the assessment register records the area of each holding, with all changes and the assessment due at the rates fixed by settlement. The annual survey is needed *inter alia* for purposes of land revenue assessment. Considerable areas of culturable waste are newly occupied from year to year either

without title or with a permit or grant from Government, and these and other changes require to be resurveyed, as each individual holding is separately assessed annually on the area occupied and cultivated. Statistics are annually collected as to prices, sales, mortgages, crops, etc., and furnish an indication of the economic changes which are annually taking place. The Department also furnishes evidence as to grazing-grounds and fisheries and measures all land for a grant of which application is made, while the inspecting staff checks tax tickets as a precaution against fraud on the part of the revenue-collecting officials. Extensions of cultivation during the earlier part of the decade were so pressing that in many cases it has been out of the power of the permanent staff to do more than prepare the annual assessment roll based on a rough survey of extensions and changes of survey have therefore been brought up to date, prior to revision of settlement, by special survey staffs under the direction and superintendence of the superior officers of the Department.

System of Settlement.

50. With the exception of the unsurveyed districts of Salween and the Hill District of Arakan, mostly under *taungya* cultivation, the assessment to land revenue of the cultivated land of Lower Burma has been determined by regular settlement. Settlement consists in fixing acre rates, based on the ascertained productiveness of the soil, the average local value of the outturn taken over a term of years, and the cost of cultivation; the rates thus deduced are compared with the rates paid by tenants and modified by other circumstances, such as the standard of living, indebtedness, etc., of the agriculturist. The ordinary term of settlement in Lower Burma has been fixed at twenty years, a shorter period being allowed in exceptional cases only. The acre rates remain fixed for the term of the settlement, but the actual assessments annually vary with the size of the holding. At the first settlement the area of each holding, as it then exists, field by field, the name of the owner or occupant, the number of years he has been in possession, and the names of the tenants and mortgagees, with the rents paid or the amount of the incumbrance, are recorded in the settlement registers and in the 16 inch map which shows each field and the external limits of each holding. Other topographical features, the area covered by culturable and unculturable waste, village sites, streams, roads, etc., are all entered and the total area of the various plots checked and compared with the total area in the *kwin* as described in paragraph 48. Second settlements were begun in 1897 and have now been completed in six districts while the Syriam District is now entering on its third settlement. At settlements subsequent to the first the new acre rates are fixed after a consideration of the same factors as at the original settlement supported by crop measurements and enquiries in every *kwin* or village. Under existing orders when the re-settlement rate exceeds the old rate on any class of land by more than 50 per cent. but not by more than 100 per cent., an intermediate rate not more than 50 per cent. above the old rate is adopted for the first five years. When the re-settlement rate exceeds the old rate by more than 100 per cent. but not more than 150 per cent. the old rate is increased by not more than 50 per cent. at once, and half the remainder of the enhancement is added to the rate at the end of five years and half at the end of ten years. When the re-settlement rate exceeds the old rate by more than 150 per cent. the progressive enhancement to be taken is settled by special orders.

Assessment of fallow land.

51. Until a few years ago it was customary to assess a cultivator on the area actually cropped. He could leave as much of his holding as he liked uncultivated, and on such uncultivated part the so-called "fallow rate" of two annas per acre was assessed, the cultivator, by payment of this quit-rent, retaining all his rights in the land. The usual reason for letting any land lie idle is that the cultivator is either unable or unwilling to cultivate it. The two-anna rate on fallows is still maintained, but in consequence of the increase in the value of land and the growth of a landlord class the extent of its application has been somewhat curtailed and wealthy or non-resident landlords are not allowed the reduced assessment. The rule now in force provides that the two-anna rate shall be levied on the whole or any part of a holding which is left uncultivated either in order to allow the soil to

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

recover from exhaustion or because the owner is prevented by causes beyond his control, such as death of cattle or illness or death in his family, from cultivating it. There are certain areas in which cultivation is not possible every year either on account of the poverty of the soil or its liability to inundation, and power has been given to the Financial Commissioner to declare by notification that within such areas it shall not be necessary to present a written application to any Revenue Officer in order to obtain the benefit of the fallow rate. When such a notification has been issued the revenue surveyor assesses all uncultivated land in the possession of cultivators at the two-anna rate and all such land in the possession of non-cultivating landlords at the full rate. The latter however are at liberty to present a written application for the benefit of the fallow rate to the Township Officer. An assessment varying at the discretion of the Deputy Commissioner from two annas per acre to the normal cultivation rate is levied on land which is left uncultivated for grazing purposes or which has been generally sublet during the five preceding years, or which has been granted revenue-free for a term of years and has not been brought under cultivation within a reasonable period, or which has not been a source of profit during the year of assessment.

Remissions.

52. The abatement on account of fallow is quite distinct in theory from abatements on account of remissions, though in practice the two kinds of abatements necessarily often coincide. Remissions are granted in cases where crops have been wholly or partially destroyed by floods or drought or other cause beyond the cultivator's control. If the entire or nearly the entire crop on a holding has been destroyed, the whole revenue is remitted. If partial loss of crop is suffered the remission is proportioned to the extent of the loss. No remission is, however, granted unless the loss of crops exceeds one-third of the estimated ordinary full outturn of the holding.

System of Survey and Settlement (Upper Burma).

Survey.

53. The system of survey in Upper Burma is the same as in the Lower Province.

Settlement.

54. The land revenue system of Upper Burma is still unsettled and is still the subject of much discussion. The following conclusions which have been embodied in legislation may be taken to have a provisional finality. The distinction between Rent and Revenue on State and non-State lands has been abolished and all lands in Upper Burma have been declared alike liable to the payment of land revenue. Prior to land revenue settlement the principal tax levied in Upper Burma was the *thathameda*-tax. A certain rate per house, usually ten rupees, was fixed for each village and the total amount arrived at by multiplying the number of houses in the village by this rate was distributed over its various households by village elders known as *thamadis*. When settlement operations were first commenced in Upper Burma attempts were made to devise a satisfactory system whereby agriculturists who paid land revenue should be exempt from the *thathameda*-tax or assessed at lower rates than the non-agricultural population. Such attempts were unsuccessful and it has now been decided that payment of land revenue should not carry exemption from liability to *thathameda*. The rate per household at which *thathameda* is to be levied is fixed by the Settlement Officer and it has been enacted that in fixing this rate the rates of land revenue payable are to be taken into consideration. In 1897 it was decided that only areas on which crops had matured should be liable to assessment to land revenue and that neither crop failures nor fallow land should be assessed. Under this system assessments in the dry zone where climatic conditions render cultivation precarious are in theory very elastic but its success has been called in question on the ground that the expense of maintaining it on poor lands where the revenue is small is not justified and that it is impossible for the Land Records Department, without an increase of staff out of all proportion to the revenue realised, to perform the duties connected with the assessment. On these grounds the experiment of fixing lump sum

assessments by *kwins*, to be distributed over the cultivators working land therein, has recently been sanctioned in the Meiktila District in the case of certain areas where cultivation is sparse and shifting. A similar system is in force for the assessment of *tari*-palms in many of the dry zone districts.

The work of settlement in Upper Burma is infinitely more difficult and varied than in Lower Burma. In Lower Burma the Settlement Officer has practically only one agricultural season, one kind of field crop, and one tenure to deal with. His field operations are restricted to the dry weather. He has no direct concern with the non-cultivating classes of the people. In Upper Burma there are three, sometimes four, separate agricultural seasons, many varieties of field crops, and several descriptions of tenures. The field operations in some districts may be continued throughout the whole twelve months of the year. In proposing rates of land revenue the Settlement Officer is guided by the statistics collected in the course of his enquiries as regards productiveness of the varieties of soil and crops, the amount of rainfall, facilities for drainage or irrigation, the local price of produce averaged over a term of years, and the cost of cultivation. In the earlier settlements the assessment rates fixed for non-State land were usually calculated at three-fourths of the rates fixed for State land otherwise similar, but latterly this distinction has been abandoned. The Settlement Officer is further required to propose the rates of *thathameda*-tax which should in his opinion be fixed on each village with reference to the incomes from non-agricultural sources of its inhabitants.

In three districts of Upper Burma, Bhamo, Myitkyina and the Ruby Mines, which have not been cadastrally surveyed and are very sparsely populated, it has been decided that settlement operations are at present unnecessary. With these exceptions the first regular settlement of Upper Burma is complete. In one district, Myingyan, in which a summary settlement was originally effected, regular operations are now in progress. Second settlements have been completed in four districts and a settlement party is at work in a portion of another district. The Upper Burma portion of the Thayetmyo District has been transferred to Lower Burma and the Lower Burma system of assessment introduced. The period for which land revenue rates have been fixed in past settlements has varied from district to district but it has now been decided that the normal period in future will be 20 years as in Lower Burma.

Supplementary Survey.

55. Supplementary survey has been extended to all cadastrally surveyed districts in Upper Burma and the seasonal revenue assessments are effected by the Land Records Department. The work of the Department in its general features is the same as that in the Lower Province, but in its details is far more laborious and less technical. Owing to the system of assessment on the area under matured crop only, each field and cultivated portion of each field have to be shown for each holding in a field register; and areas on which the crop has failed, areas irrigated and symbols for all the various crops field by field have to be entered. The assessments follow the various harvest seasons; and though the winter harvest is the most important, in some districts the autumn and the hot-weather harvests are heavy, and in upland tracts the surveyor has usually to visit the same holding twice in the year to record the matured crop area. The calculation of assessments, which are shown in a separate register, is further complicated by the different rates on soils, crops and State and non-State lands. Remissions of revenue are allowed on the same principles as in Lower Burma, but in districts where crops are precarious a liberal interpretation is put upon the term "matured crop" and the need for regular remissions tends to disappear. Suspensions of revenue are unknown and unnecessary in Burma.

Civil Divisions of British Territory.

Number of divisions.

56. The Civil divisions in Burma are indicated under the heading "Form of Administration". There are four divisions in Lower Burma and four in Upper Burma.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

57. The four divisions in Lower Burma are Arakan, Pegu, Irrawaddy and Tenasserim. The Pegu and Irrawaddy Divisions were formed in 1881 by the partition of the old Pegu Division.

Lower Burma. Arakan Division.

58. The area of the Arakan Division is 14,807 square miles and the population at the Census of 1911 was 839,896. The division contains four districts—Hill District of Arakan, Akyab, Kyaukpyu and Sandoway. The Hill District of Arakan or the Arakan Hill Tracts was separated from Akyab in 1871. It is a mountainous region with a sparse population of various tribes in a low stage of civilization. Its administration is entrusted to a Police Officer who exercises the powers of a Deputy Commissioner and whose principal duties are the maintenance of internal peace and the protection of the inhabitants from raids by the tribes on the other side of the administrative frontier. The area of this district is 1,500 square miles and its population 22,234. The Akyab District in which is situated the chief town of the division from which the district takes its name is divided into four subdivisions and nine townships. The Kyaukpyu District contains one subdivision with three townships and in addition two townships which do not form part of a subdivision and whose township officers are under the direct control of the Deputy Commissioner. The Sandoway District contains three townships not grouped into a subdivision.

Pegu Division.

59. The Pegu Division has an area of 13,258 square miles with a population of 2,073,737. It is divided into six districts,—Rangoon Town (headquarters of the division), Insein, Hanthawaddy, Tharrawaddy, Pegu and Prome. The Rangoon District was divided in 1879 into the Rangoon Town and Hanthawaddy Districts, this Hanthawaddy District was in 1883 divided into the Hanthawaddy and Pegu Districts and in 1912 this second Hanthawaddy District, with the addition of a township from the Pegu District, was formed into the Hanthawaddy and Insein Districts. Since 1894 the Rangoon Town District has been divided into two subdivisions. The Insein District contains two subdivisions and four townships, and the Hanthawaddy District two subdivisions and five townships. The Pegu District is split up into two subdivisions and five townships. Tharrawaddy, at one time a subdivision of Henzada, was constituted a separate district in 1878 and has two subdivisions and six townships. The Prome District lies on both sides of the Irrawaddy river and consists of the Prome, Paungdè and Shwedaung Subdivisions with seven townships.

Irrawaddy Division.

60. The Irrawaddy Division was formed in 1881 by the separation from the Pegu Division of the four districts of Bassein, Thôngwa, Henzada and Thayetmyo. The last named district was in 1893 transferred to what was then called the Southern and is now known as the Magwe Division of Upper Burma. At the same time the Myaungmya District was formed of portions detached from the Bassein and Thôngwa Districts. The Thôngwa District was originally constituted in 1875 from parts of the Bassein, Henzada and Rangoon Districts. In 1903 the district was divided into the Ma-ubin and Pyapôn Districts. The five districts which now together constitute the Irrawaddy Division are thus Bassein, Henzada, Myaungmya, Ma-ubin and Pyapôn. Bassein and Henzada have each two subdivisions and six townships, Myaungmya, Ma-ubin and Pyapôn each two subdivisions and four townships. The area of the Irrawaddy Division is 13,408 square miles and its population 1,869,485.

Tenasserim Division.

61. The Tenasserim Division with its headquarters at Moulmein consists of the districts of Toungoo, Salween, Thatôn, Amherst, Tavoy and Mergui. Its area is 35,886 square miles with a population of 1,429,294. The Shwegyin District was abolished in 1895 and in the same year the Thatôn District was formed from parts of the Shwegyin and Amherst Districts. The rest of the Shwegyin District was divided between the Pegu and Toungoo Districts. In 1895 certain islands off the Tenasserim coast were incorporated in the Amherst, Tavoy and Mergui Districts. In 1870 the Toungoo District was transferred from the Pegu to the Tenasserim Division. It consists of the Toungoo, Pyu and Shwegyin Subdivisions with eight townships. The Salween District is a hilly tract lying on the borders of

the Siamese Province of Chiengmai. There are in the Thatôn District three subdivisions and six townships. The Amherst District comprises the three subdivisions of Moulmein, Amherst and Kawkareik with eight townships. Till 1898 the Moulmein Subdivision was a separate district for purposes of Criminal Judicial Administration but it was in that year declared to be a subdivision of the Amherst District. The Tavoy and Mergui Districts are narrow strips of land between the sea and the Siamese frontier. The former contains four townships not grouped into subdivisions and the latter two subdivisions and five townships.

Upper Burma.

62. Upper Burma (exclusive of the Shan States) was, by a notification dated the 29th November 1886, divided into the Northern, Central, Southern and Eastern Divisions. The names of these four divisions were changed in 1897 to Mandalay, Sagaing, Minbu and Meiktila respectively. In September 1907 the headquarters of the Minbu Division were transferred from Minbu to Magwe and it was named the Magwe Division.

Mandalay Division.

63. The Mandalay Division, including Möng Mit State, with headquarters at Mandalay, contains 32,476 square miles with a population of 832,969. It is divided into the five districts of Mandalay, Bhamo, Myitkyina, Ruby Mines and Katha. The Bhamo District was in 1895 divided into the two districts of Bhamo and Myitkyina and in the same year the Shwebo District was transferred from the Mandalay to the Sagaing Division. The Mandalay District consists of five subdivisions and five townships. Bhamo contains two subdivisions and two townships and Myitkyina three subdivisions and three townships. The Katha District consists of the three subdivisions of Katha, Wuntho and Banmauk with eight townships. This district includes what was formerly the Shan State of Wuntho. Included in the Ruby Mines District are two subdivisions and three townships. Möng Mit is a Shan State administered by its chief under the supervision of the Deputy Commissioner of the Ruby Mines District.

Sagaing Division.

64. The Sagaing Division contains the districts of Shwebo, Sagaing, Lower Chindwin and Upper Chindwin, and has an area of 26,182 square miles and a population of 1,155,271. The Ye-u District was abolished in 1895 and its territory amalgamated with the Shwebo District which was at the same time transferred to the Sagaing Division. The Shwebo District consists of the subdivisions of Shwebo, Ye-u and Kanbalu and nine townships. The Sagaing District was formed in 1888 by the union of the former Sagaing and Ava Districts. It contains the two subdivisions of Sagaing and Myinmu with six townships. The Upper and Lower Chindwin Districts were formed in 1888 by the division of the former Chindwin District. The Lower Chindwin contains two subdivisions and five townships and the Upper Chindwin four subdivisions and ten townships including what was formerly the Shan State of Kalè. The Shan States of Hsawnghsūp and Singkaling Hkāmti are under the supervision of the Deputy Commissioner of the Upper Chindwin. The headquarters of the Lower Chindwin District are at Mônywa and of the Upper Chindwin at Kindat.

Magwe Division.

65. This was formerly known as the Minbu Division. The headquarters were transferred from Minbu to Magwe in September 1907 and the name of the division changed. It is divided into the four districts of Thayetmyo, Pakôkku, Minbu and Magwe. It has an area of 17,575 square miles and a population of 1,239,032. As already stated, the Thayetmyo District was in 1893 transferred from the Irrawaddy Division to this division. It consists of the two subdivisions of Thayetmyo and Myedè which are divided into six townships. The greater part of the district is in Lower Burma. The Myingyan District was in October 1893 transferred from this division to the Meiktila Division. The Pakôkku District comprises the three subdivisions of Pakôkku, Pauk and Gangaw with eight townships. In 1898 the eastern boundary of the district was demarcated and the Pakôkku Hill Tracts, which had formerly been treated as part of the district, were placed under a Superintendent, by whom they are administered under the Chin Hills Regulation, subject to the direct control of the Commissioner of the Magwe Division.

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

The Yawdwin Subdivision of the Pakôkku District was abolished in 1898. The Minbu District has two subdivisions and five townships; Magwe two subdivisions and six townships.

Meiktila Division.

66. The Meiktila Division, with an area of 10,819 square miles and a population of 1,170,572 is divided into four districts—Kyauksè, Meiktila, Yamèthin and Myingyan. As mentioned above Myingyan formerly belonging to the Magwe Division became part of this division in 1893. It contains the two subdivisions of Myingyan and Pagan which are divided into six townships. The present Yamèthin District was formed in 1893 by the amalgamation of the then existing Pyinmana and Yamèthin Districts, Pyinmana becoming the headquarters of a subdivision. The two subdivisions of the district are again divided into five townships. The Kyauksè District is divided into two subdivisions and three townships and the Meiktila District into two subdivisions and four townships.

Shan States.

67. The Shan States are divided into the Northern and the Southern Shan States each under the charge of a Superintendent. The area of the Northern Shan States is 14,294 square miles and its population numbers 458,952; the corresponding figures for the Southern Shan States are 40,434 square miles and a population of 900,202. There are five States in the Northern and 38 in the Southern Shan States. There are in addition two Shan States under the supervision of the Commissioner of the Mandalay Division namely Hkāmti Lōng in the unadministered territory to the north of the Myitkyina District and Möng Mit lying north-east of the Ruby Mines District. In the north-west of the Upper Chindwin District towards Manipur there are two small Shan States Hsawnghsūp and Singkaling Hkāmti whose administration is supervised by the Commissioner of the Sagaing Division.

Chin Hills.

68. The area of the Chin Hills is estimated as 8,000 square miles and of the Pakôkku Hill Tracts as 3,700 square miles. The population of the former according to the Census of 1911 was 119,556 and of the latter 26,251. The Officer-in-charge of the Chin Hills is a Superintendent whose headquarters are at Falam and who is assisted by four Assistant Superintendents stationed at Falam, Tiddim and Haka. A Superintendent with an Inspector of Police and an Assistant Commandant of Military Police stationed at Kanpetlet administers the Pakôkku Hill Tracts.

Details of the last Census Tribes and Languages.

Sphere and method of operations.

69. A census of the Province was taken during the early part of 1911. Throughout the greater portion of the country the population was enumerated during the night of the 10th March. There are however numerous areas in the Province in which it was not feasible to take a synchronous census. The unadministered territory lying to the north of the Myitkyina and Upper Chindwin Districts and the Hill District of Arakan, and the trans-Salween State of East Manglün were altogether omitted from the sphere of operations. In other tracts an estimate only of the population was attempted based on an actual count of the inhabitants of a number of selected villages supplemented by an actual count of the number of houses in the tract. This was the method adopted in the census of the unadministered parts of the Pakôkku Hill Tracts, West Manglün, Kokang and part of Karenni. In some other districts a complete enumeration of the population was made during the months of January and February 1911, which only differed from the synchronous census in that the results were not checked on the night of the 10th March. The principal districts in which this method was adopted were the Northern and Southern Shan States, the Chin Hills, Hill District of Arakan, the administered territory in the Pakôkku Hill Tracts, and the Kachin Hill Tracts in the Myitkyina, Bhamo, Katha and Ruby Mines Districts.

General statistics.

70. The total population of the Province was found to be 12,115,217 as compared with 10,490,624 in 1901. Comparison with the numbers at any previous census is rendered difficult by the fact that the area over which the census is taken has been progressively extended at each decennial period. The earliest census with which any useful comparison is possible is that of 1891 in which the figures for Upper Burma are included for the first time. In the area covered by the Census of 1891 we find that the population which was then 7,722,053 has in 1911 increased to 10,418,531, an increase of 2,696,478 or 34·9 per cent. in twenty years. The figures of the 1901 census for the same area were 9,118,734 giving an increase for the past ten years of 1,299,797 or 14·2 per cent. In order to institute a comparison between the figures of 1901 and those of 1911 there must be eliminated not only figures for the areas to which the census was first extended in 1911 but also those for areas in which the population was estimated in 1901 and enumerated in 1911. When this is done the numbers are found to have increased from 10,299,397 to 11,786,195 in the ten years, an increase per cent. of 14·43. The increase in population is common to all the districts of the Province with the exception of Mandalay, where a diminution of the population of the town of Mandalay by 25 per cent. has caused a decrease of seven per cent. in the district total. The population of the district outside the town has increased by eleven per cent. Of the total population of 12,115,217 the number of males is 6,183,494 and of females 5,931,723, an excess of males of 251,771. The number of females per 1,000 males is 959 as compared with 962 at the census of 1901 and the census of 1891. The excess in the number of males is accounted for by the large number of male immigrants from India who enter the Province and is most pronounced in Rangoon and Lower Burma where most of them take up their abode. The density of the population per square mile of Burma proper was 65 as compared with 55 in 1901.

Towns and villages.

71. Rangoon and Mandalay are the only two towns in the Province with over 100,000 inhabitants. The population of Rangoon increased from 234,881 in 1901 to 293,316 in 1911. If for purposes of comparison the population in 1901 of certain areas which were transferred to the town in the interval be added, the figures are 245,430 in 1901 and 293,316 in 1911. The rate of increase is 20 per cent., as compared with 35 per cent. in the previous decade. At the time of the census the prosperity of the town was injuriously affected by the reaction which followed an outburst of speculation, first in land and later in the shares of various industrial companies. Further, the demand for labour from Southern India for the rubber plantations in the Federated Malay States materially diminished the net gain to the population of Rangoon from immigration. The population of Mandalay declined from 183,816 to 138,299, a decrease of 25 per cent. of the population of 1901. The completion of the railway to Myitkyina and the Northern Shan States deprived Mandalay of much of its commercial importance. The removal of part of the garrison and of the headquarters of many of the Civil Departments to the hill station of Maymyo has rendered it a much less important administrative centre. For several years in succession it was scourged by plague and a few months prior to the date of the census a disastrous fire destroyed the greater part of the most thickly populated quarter of the city.

The total urban population of the Province was 1,127,975 as compared with 989,938 in 1901 and the percentage of the total population living in towns was 9·3 as compared with 9·4. There were however 63 places classified as towns in 1911 and only 52 in 1901. Of the 63 towns, 15 were enumerated as towns for the first time, the population of 22 showed an increase and the population of 26 a decrease during the decade. Economic conditions during the period 1901—1911 have been largely in favour of agriculture and there has in consequence been a spontaneous movement of the population from the towns to the villages which has retarded the growth of the former. The remainder of the inhabitants, amounting to 90·7 per cent., live in villages. The number of villages in Burma proper was 44,955 in 1901, and 18,640 in 1911, but the unit of classification adopted was not the same in the two years. In 1901 every residential hamlet was classified as a village, but in 1911 the unit adopted was the administrative village-tract under the charge of

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

a headman. Comparison between the numbers of the two years is therefore impossible. The average population per house diminished from 5·87 in urban areas and 4·97 in rural areas in 1901 to 5·29 in urban areas and 4·84 in rural areas in 1911. This decrease is attributed to the greater dispersion of population which has ensued upon the rapid extensions of cultivation in the Province.

Religions.

72. The number professing the Buddhist religion in the Province was 10,384,579 as against 9,184,121 in 1901, an increase of 13 per cent. The percentage of Buddhists to the total population was 85·72 while in 1901 it amounted to 88·62 and in 1891 to 90·53. The difference of the areas over which a census of religions was taken in each of these years impairs the completeness of the figures for purposes of comparison. The number returned as Animists was 701,473 as compared with 399,39[illegible] in 1901. Animists, however, consist for the greater part of those primitive tribes in the hills and on the frontiers of the Province among whom the greatest extension of the census area has taken place and the increase in their numbers is principally due to this cause. The Hindu population numbered 389,679 in 1911 as compared with 285,484 in 1901, an increase of 36 per cent. as compared with an increase of 65 per cent. in 1891—1901. They now form 3·12 per cent. of the total population as against 2·75 per cent. in 1901. There were 420,777 Mahomedans enumerated in 1911 and 339,446 in 1901, a rate of increase of 24 per cent. They now form 3·47 per cent. of the population as against 3·28 per cent. in 1901. The growth of the Mahomedan population is to a much greater extent than that of the Hindus the result of natural increase and is not, like that of the latter, almost wholly due to immigration. The Hindu population is still increasing more rapidly than the Mahomedans, but its greater dependence on immigration renders it unlikely that the present rate of increase will be maintained. The number of Christians in Burma on the date of the census was 210,081, an increase of 42 per cent. on the number returned in 1901. Of the indigenous races of the Province, the Karens furnished the largest proportion of these numbers—130,271—and the Burmese came next with 17,446. There were 23,089 Indian Christians, the majority of them immigrants from Madras. The other religions returned at the census were the Sikh, Jain, Zoroastrian, Jewish and Confucian, which between them numbered only 8,583 adherents.

Occupations.

73. The method of classification of the figures relating to occupations adopted in 1891 and 1901 was at the Census of 1911 discarded in favour of a system based on a report by the French statistician M. Bertillon and endorsed by the International Institute of Statistics. According to this system occupations are divided into four main classes and twelve sub-classes according to the following scheme :—

Class.		Sub-class.	
Symbol.	Description.	Symbol.	Description.
1	2	3	4
A	Production of raw materials ...	I	Exploitation of the surface of the earth.
		II	Extraction of minerals.
B	Transformation and employment of raw materials.	III	Industry.
		IV	Transport.
		V	Trade.
C	Public Administration and the liberal arts.	VI	Public force.
		VII	Public Administration.
		VIII	Liberal professions.
		IX	Persons living on their income.
		X	Domestic service.
D	Miscellaneous	XI	Insufficiently described occupations.
		XII	Unproductive.

A general review of the proportions of the population supported by the twelve main sub-classes of occupations reveals the decided preponderance of agriculture and allied pursuits over all the remaining occupations combined. The first sub-class "The Exploitation of the surface of the earth" supported 8,624,395 persons or 71·63 per cent. of the population against 28·37 per cent. supported by all the remaining industries of the Province. The census again was taken at the slackest time for agricultural operations during the whole year and consequently many persons normally engaged in agriculture were entered under other occupations. It is therefore probable that on the whole more than 72 per cent. of the inhabitants derived their subsistence from the direct exploitation of the surface of the earth. Trade is the second of the sub-classes of occupations, supporting 1,203,721 persons or 10 per cent. of the population. Industry with its 14 orders of industry connected with textiles, hides and skins, wood, metals, ceramics, chemical products, food, dress and toilet, furniture, building, transport, construction, physical forces, luxury, and refuse matter, afforded the means of subsistence to 806,431 or 6·7 per cent. of the population only. Transport, abnormally active at the time of the census, afforded support to 393,652 persons, only 3·27 per cent. of the population, the professions and liberal arts following with 256,276 or 2·12 per cent. Of the remaining six sub-classes of occupations none support so many as one per cent. of the population. The numbers are:—public administration 103,108, domestic service 85,771, public force 79,495, extraction of minerals 15,293, unproductive occupations 34,575, and persons living on their income 6,967. There remains a population of 429,399 whose occupations were not defined with sufficient precision to enable them to be allotted to any of the sub-classes in the scheme. The most of these were described as labourers or workmen and should therefore be added to the total of sub-class III Industry.

74. The following table gives the numbers of the indigenous races at the Census of 1911 :— Indigenous races.

Burmese	...	7,642,204	Shans	...	996,420
Arakanese	...	344,123	Taungthus	...	183,054
Kachins	...	239,953	Karens	...	919,641
Chins	...	306,486	Talaings	...	320,629
Wa Palaungs, Miaos, Yaos and Salons		... 175,636			

The Burmese group of tribes, including Arakanese, has increased in numbers by 889,079 or 12½ per cent. during the decade 1901—1911. The group comprises thirteen constituents and the greater part of the increase has occurred among the Burmese race itself. The number described as Arakanese is 61,020 less than in 1901, and a decrease from 34,629 to 11,196 occurs among the Kadus. A similar decrease in numbers is apparent among the Mro or Mru race in the Chin Hills which border on Arakan. With the removal of the barriers to intercourse which formerly existed, the assimilative power of the Burmese race is now enjoying free scope for its exercise.

The numbers given as Kachins include the Kachin-Burma hybrid tribes and the Lolo group of tribes, as well as the Kachins proper. This group of races numbered 113,269 at the Census of 1901. The increase in numbers is due entirely to the wider area of census operations and greater exactness of enumeration in 1911. The same causes account for the increase in the number of Chins from 214,607 to 306,486. The record of the numbers of these two races is however still far from complete.

The number of Shans shows an increase of 102,992 since 1901. Apart from natural increase, the extension of census limits to include Kokang and West Manglön accounts for 16,274. The natural rate of increase is about nine per cent. for the decade. There is a tendency, when the Shans are sparsely distributed and come into contact with the Kachins, the Burmans and the Chinese, for the Shans to lose gradually their language and racial characteristics. The Taungthus show an increase of 14,753 or slightly less than nine per cent. over the figures for 1901. They are a branch of the Karen race and the smallness of their rate of increase probably indicates that many of them were simply enumerated as Karens. The total number of the Karen tribes including the Taungthus was 1,102,695, or 199,334

CHAP. II.—PHYSICAL AND POLITICAL GEOGRAPHY.

more than in 1901, but 63,628 of this increase in numbers was due to the inclusion for the first time of the records from the Karen i Subdivision. Without the extra area the increase is approximately 15 per cent. The number of Talaings has decreased by 1,269 since 1901 and is now 320,629. The decrease between the years 1891 and 1901 amounted to 145,987, and the inference is that the process of complete assimilation with the Burmese with which the race was threatened has been stayed. The increase in the number of the Palaung Wa group of tribes from 68,727 in 1901 to 172,494 in 1911 is due to the extension of the census area and improved classification. The Miaos and Yaos are hill tribes whose original home is in China and a few villages of whom are to be found in the Shan States. They only number 1,158 in all. The Salons, of the Mergui Archipelago, have increased in number from 1,325 to 1,984, in the decade.

Origin of indigenous races.

75. Of the original inhabitants of Burma little or nothing is known. Linguistic evidence points to the occupation of the country by a race akin to the Mundā races of India, but its traces are few and faint. The present population of Burma, as of the whole of Indo-China, is derived from the invaders who in three successive waves swept down upon the country from the highlands of Central Asia. The main current of the earliest of these, the Mon-Khmer, flowed down the valley of the Mekong into Southern China, Cambodia and Siam and entered Burma from the East rather than from the North and after its original force was largely spent. Only in the South were the Mon-Khmer race able to acquire a firm and lasting hold on the country and absorb the earlier Mundā inhabitants. Their weaker settlements in the Upper Irrawaddy and the Chindwin valleys were swept away by succeeding invaders from the North or remained isolated as islands amid a population of alien race and speech. Such are the Wa-Palaung villages in the Northern Shan States and the Ruby Mines District. In the South of the Province the Talaings in the Thatôn and Amherst Districts, a small and diminishing group, are the other representatives of the Mon-Khmer race.

There is some uncertainty as to the priority in date of the Tibeto-Burman and the Shan invasions of Burma, but the more generally received opinion is that though occasional sporadic movements of the Shans may have taken place at an earlier time the Tibeto-Burman racial movement as a whole is the second in point of date. The present opinion is that the latter migration had its origin not in Tibet but in the region in Western China between the sources of the Yang-tse-kiang and the Ho-ang-ho. Upon reaching the headwaters of the Irrawaddy and Chindwin rivers the race branched out in five directions leading to Tibet, to Assam, to the hill ranges between Assam and Burma, to the Irrawaddy valley, and the valleys of the Salween and Mekong. The races resulting from the last three of these movements may be classified as the Western and Eastern Tibeto-Burmans. To the former belong the Chins, who have gradually extended southward from the Irrawaddy-Brahmaputra watershed till they have occupied the whole of the hilly country as far as the Bay of Bengal. A much later branch of the same movement are the Kachins, who are at the present moment pushing vigorously to the south and eastward, who have already to a great extent expelled the Palaungs from the Ruby Mines District and the Shans from part of North Hsenwi State, and the regulation of whose indomitable and unscrupulous passion for expansion of territory presents a grave administrative problem.

The Eastern Tibeto-Burmans followed the course of the 'Nmaikha, the eastern branch of the Irrawaddy, and so emerged into the plain country round that river. They found no difficulty in displacing the weak and scattered settlements of the Mon-Khmer race in the upper portion of the river. There the town of Tagaung became the nucleus of an ever-enlarging combination of tribes which eventually became a settled kingdom. A similar process of cohesion and amalgamation had been going on in the Mon-Khmer settlements in the south, and eventually the country round Prome became the frontier between the Burmese and the Mon-Khmer or Talaing kingdoms. Less is known of the origin of the Karen, of the situation of the region from which they originally came, of the time of their migrations, of the routes they followed and of the circumstances of their settlement in Burma and the Southern Shan States, than of any of the other

races within the Province. There is however a high degree of probability that they came originally from the cradle of all the Indo-Chinese races, the highlands of Western China, and that they preceded the main migration of the Shans. Their movements have left no impression on the histories of other races, and their legends are not of a nature to enable the paths they followed to be traced. They must have avoided the southerly path of the Tibeto-Burmans and the south-easterly path of the Mon-Khmers before their western extension, so in all probability they came by an intermediate route and entered the Southern Shan States at a point north of Karenni. Occupying the hilly region of Karenni, at the extreme south of the Shan States, they gradually spread southwards and westwards over the deltaic plains and the hills of Tenasserim.

The Shans entered Burma rather as a military and colonising expedition from an established state than as a primitive race migration. From their kingdom in South-Western China they issued forth and obtained their first permanent footing in the Shweli valley. From this as a centre they spread northwards through the valleys of the Upper Irrawaddy and the Chindwin into Assam and southwards and eastwards into the present Shan States. Their expulsion from China was followed by the establishment of a powerful Shan kingdom in the Shweli valley, which existed for several centuries amid constant warfare with its Burmese and Chinese neighbours.

Indigenous languages.

76. The indigenous languages of the Province have been grouped by the Linguistic Survey into two families, the Tibeto-Chinese and the Austro-Asiatic. Included in the Tibeto-Chinese are two sub-families, the Tibeto-Burman and the Siamese-Chinese. The Tibeto-Burman sub-family includes the following groups of languages, Burmese, Lolo, Kachin and Kuki-Chin; to the Siamese-Chinese sub-family belong the Tai and Sinitic groups. Comprised in the Austro-Asiatic family is one sub-family, the Mon-Khmer, which includes the Talaing, Palaung-Wa and Miao-Yao groups of languages. The Tibeto-Burman sub-family comprises 73 per cent. and the Siamese-Chinese sub-family 16·8 per cent. of the provincial population. Together they approximate to 90 per cent. of the total inhabitants. The Burma group of languages includes ten constituent dialects. Together they form the speech of 8,317,842 persons or 68·67 per cent. of the population of the Province. The principal language of the group is Burmese, which is spoken by 7,883,299 persons or 65 per cent. of the total population. The increase in the number returning Burmese as their language amounts to 12·51 per cent. Arakanese is the most important of the other dialects of the group; and the number recorded as speaking it has declined from 383,400 to 323,962, a decrease of 15·50 per cent. The decline of this language is due simply to the progress of Burmese. The other dialects of the group are of little importance. The Lolo group is the name given to a number of dialects spoken on the eastern and north-eastern frontier of the Shan States. The main body of the races which speak these languages lives in Yünnan and there are only scattered settlements within Burma.

The number of persons recorded as speaking Kachin is 170,144, as compared with 67,026 in 1901. This number includes 730 persons using a small group of languages classified as Kachin-Burma hybrids. The increase in numbers is principally due to the extension of census limits, but is also in part the result of the movement of the Kachins southward and eastward and of their tendency to absorb the minor tribes with whom they come in contact. The increase in the population speaking Kuki-Chin languages from 209,495 in 1901 to 295,283 in 1911, an increase of 40·95 per cent., is also due to the enlargement of the area in which the enumeration took place.

Turning now to the Siamese-Chinese sub-family it is found that the numbers speaking Tai languages have increased from 844,306 in 1901 to 968,375, an increase which is only in a slight degree caused by the inclusion for the first time of Kokang and West Manglün in the 1911 census. The Shans or Tai race also display some powers of absorption of minor and scattered tribes who live among them. The various dialects of the Sinitic or Karen languages, including Taung-thu, were spoken by 1,067,363 persons in 1911 as compared with 881,290 in

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

1901. In the case of these languages also there are considerable areas over which a record of language spoken was for the first time taken in 1911, with the result that comparison between the figures of the two years is not possible.

Of the Austro-Asiatic family of languages only one sub-family, the Mon-Khmer, is found in Burma. To this sub-family belong the three groups of the Talaing, the Palaung-Wa and the Miao-Yao languages. Talaing, the language of the Mon-Khmer inhabitants of the southern part of the Province, was after the conquest of Pegu by Alaungpaya in 1757 discouraged in every way and after 1826 prescribed altogether. At every previous census the number recorded as speaking the language diminished, but in 1911 it showed an increase from 154,483 in 1901 to 179,443. The Palaung-Wa are a group of languages spoken by various tribes, some of them very primitive, in the northern and north-eastern parts of the Northern Shan States. The numbers recorded as speaking languages of this group were 42,347 in 1901 and 165,757 in 1911. Extension of census limits and difficulties in the way of effective enumeration afford a partial explanation of the differences between these figures. The tribes speaking the Miao-Yao group of languages belong to South-Western China, and only 920 of these numbers were enumerated in Burma.

Another family of languages of which a few speakers are indigenous to Burma is the Malayo-Polynesian. There were recorded 4,190 persons who gave Malay as their language and 1871 who used Salon (Mawken). These two languages were found in the Mergui District and the islands off its coast.

The following statement gives the number of persons using the principal non-indigenous languages at the Census.

Tamil	125,670	Other Indian languages ...	42,152
Telugu	123,162	Chinese	108,877
Oriya	19,112	Other Asiatic languages ...	1,141
Bengali	248,310	English	24,355
Hindi languages ...	184,882	Other European languages ...	820

Changes in the Administration.

The Lieutenant-Governor.

77. The Hon'ble Sir Harvey Adamson, M.A., LL.D., KT., K.C.S.I., I.C.S., was Lieutenant-Governor of Burma throughout the year.

Administrative territorial changes.

78. The Kyaikmaraw Township of the Amherst District was subdivided into two townships, the Kyaikmaraw and Kyain Townships, and certain minor rectifications of township boundaries took place in the Pakôkku, Bhamo and Pegu Districts. The arrangements for the reorganization of the Hanthawaddy and Pegu Districts into three, to be known as the Pegu, the Insein and the Hanthawaddy (Syriam) Districts were completed during the year, but did not actually take effect until the 1st April 1912.

Additions to and changes in the Administrative Staff.

79. The permanent appointment of a fifth Judge to the Lower Burma Chief Court was created during the year. A reorganization of the Subordinate and Provincial Judicial Services was also effected, and an Additional Judge appointed for the District Courts of Yamèthin and Kyauksè.

The Kheddah Department was permanently disbanded. An additional Inspector of Schools was appointed for the Arakan Circle and the service of Civil Assistant Surgeons was also reorganized during the year.

Relations with Tributary States and Frontier Affairs.

(*i*) *Shan and Karenni States.*

[*Southern Shan States*: 38 *States, area* 36,154 *square miles, population* 836,574, *tribute Rs.* 2,73,550; *Karenni*: *five States, area* 4,280 *square miles, population* 63,628, *tribute Rs.* 5,350; *Northern Shan States*: *five States, area* 16,594 *square miles, population* 480,390, *tribute Rs.* 1,54,500; *Möng Mit*: *area* 3,562 *square miles, population* 53,214, *tribute Rs.* 20,000; *Hsawnghsup* (*Thaungthut*): *area* 579 *square miles, population* 7,697, *tribute Rs.* 400; *Singkaling Hkamti* (*Zingalein Kanti*): *area* 983 *square miles, population* 2,560, *tribute Rs.* 100; *Khâmti Long* (*Kanti-gyi*) *or Bhor Kâmpti*): *area* 973 *square miles, population* (*approximate*) 11,000, *tribute Nil.*]

The Southern Shan States.

80. The Southern Shan States were peaceful during 1911-12 and the year, though not so prosperous as 1910-11, was yet a fairly good one. Earthquake shocks in May did considerable damage to the solid Government buildings at Taunggyi and also to Pagodas throughout the States. The administration of the States has on the whole been satisfactory, two States only, Möng Nai and Mawkmai, being adversely commented on by the Superintendent. Events in China caused much interest and some alarm in the districts bordering on that country, but the year passed quietly and a small affray was the only incident to disturb the peace of the border. On the Mekhong relations with French territory were friendly, and on the Siamese border a meeting took place between the Assistant Superintendent and the Commissioner of Chiengrai at which matters of common interest were discussed. The sanctioned strength of the Military Police Battalion (1,136 of all ranks) was unchanged. Some difficulty is experienced in getting Sikh recruits of the right stamp, but the Gurkhas and Shans are of a good class. The lack of decent housing accommodation in the case of the Shans is adversely commented on. The Civil police force is up to its sanctioned strength of 96, and has worked satisfactorily. The need of investigating officers is, however, much felt. Eighteen States maintained a paid police force during the year. The number of cases reported during the year was 955 as against 858 in the previous year. Violent crimes fell from 60 to 52. On the whole the courts did good work. The weakness of the criminal administration is due to failure in detection.

The number of civil cases filed during the year fell from 687 to 632 and there were 79 cases pending at the end of 1910-11. Only 60 cases were pending at the close of the year. West of the Salween the rains were generally insufficient and the month of October was exceptionally dry. The rice crop suffered from want of water and from insect pests. In Kēngtūng the rice crop was excellent. The principal crops other than rice were generally satisfactory. The health of cattle was on the whole good, outbreaks of rinderpest and other diseases being strictly local. Losses were more severe in Kēngtūng than in the Salween States, but not sufficient to curtail cultivation. Certain additions and changes were made to the reserved forests and the total area was 1,593 square miles as compared with 1,513 square miles at the end of 1910-11. The arrangements for working teak suffered little alteration and the number of teak logs that paid duty at revenue stations was 11,968 as against 12,428 in the previous year. The Southern Shan States Railway Company also paid duty on a quantity of pine, and other timber extracted from reserved or protected areas. The total Forest Revenue was Rs. 95,030 as against Rs. 91,112 and expenditure declined from Rs. 85,833 to Rs. 84,484. Two lead mines were worked during the year and 27,000 viss of ore was exported. The trade with Burma is dealt with in Chapter IV. The total expenditure on public works was Rs. 5·19 lakhs of which Rs. 2·99 lakhs was spent by Government, Rs. 1·51 lakhs was spent by the Chiefs from their own funds and Rs. ·69 lakh contributed from remission of tribute. The total expenditure in 1910-11 was Rs. 4·90 lakhs, Rs. 3·41 lakhs of which was spent by Government. The revenues of the States rose from Rs. 9·76 lakhs to Rs. 10·34 lakhs.

There are 15 hospitals and dispensaries in the States, five belonging to the Military Police, and one to the Public Works Department. Outdoor patients fell from 52,187 to 49,610, but indoor patients increased to 1,672. The number of registered public schools declined from 78 to 72 and at the end of the year there were 84 pupils at the Taunggyi school for the sons of Shan Chiefs as against 79 in the previous year. This school now teaches up to the Ninth Standard, but an increased staff is badly required.

The Karenni States.

81. Kantarawadi, the largest of the five Karenni States, continued to be administered by a council. The year was marked by the abolition of the custom of assigning districts to local officials to collect and appropriate the revenue, subject to a fixed and usually trifling payment to the State. A quantity of perforated and now uncurrent coin has been withdrawn from circulation and new coin to the value of Rs. 12,000 issued. A drainage and irrigation scheme for restoring and extending cultivation in the Loikaw-Ngwedaung plain has been begun and it is hoped that

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

7,000 acres can be brought under cultivation. If successful, this scheme will provide the people with a much needed source of income to take the place of the exhausted teak forests. In the lesser States the year was uneventful. The peace of the Karenni-Siam border was not disturbed and the most notable event was the migration of people from Siam into Karenni territory. The offences reported rose from 38 to 42, six being violent crimes. The rainfall was higher than in the preceding year, but was ill-distributed and the yield of paddy was below normal. There was little cattle disease. The year proved better than was expected in the timber trade, but so little workable teak is left that no real revival can be expected. A good deal of development work continues to be done at the Mawchi mines and it is thought that a crushing-mill will be at work early in 1913. Public Works absorbed Rs. 35,000 in Kantarawadi, and smaller sums in Bawlakè and Kyèbogyi. A budget was prepared for the first time in the first-named State. Receipts, including the opening balance of Rs. 21,371, totalled Rs. 1·43 lakhs and expenditure Rs. 1·04 lakhs, leaving a closing balance of nearly Rs. 39,000.

The Northern Shan States.

82. The revolution in China left the Northern Shan States unaffected and the border was quiet. A British Officer of Military Police and an escort remained in North Hsenwi throughout the open season, but the Sinwas who had been threatening trouble as in the previous year dispersed on their arrival. The administration of the States was satisfactory and the reforms introduced in North Hsenwi in the previous year proved very successful. The sanctioned strength of the Military Police Battalion remained at 678 of all ranks and a general improvement in the morale and efficiency of the men has been secured. Transport and buildings are still insufficient. There has been no change in the sanctioned strength of the Civil Police. The conduct of the men has, however, fallen off, and the want of a training school is very noticeable. At several stations the supply of house accommodation is insufficient.

The number of cases disposed of by all Courts rose from 650 to 707. Thirty-three cases remain pending. There were 33 violent crimes as against 26 in 1910-11. The number of civil cases filed during the year rose from 505 to 535. The rainfall was less than usual and not well distributed, and the rice crop was everywhere below normal. The high prices ruling along the railway line led to overselling, with the result that paddy at the close of the year was in some parts unobtainable and the price everywhere very high. The tea crop also suffered from the lack of rain in parts. There were no alterations in the area of reserved and unclassed forests. The revenue on teak paid by the Bombay Burma Trading Corporation amounted to Rs. 57,912, an increase of over 10 per cent. on the previous year. The Burma Mines, Limited, have continued to prosper and have moved their smelter from Mandalay to Namtu. Nearly 28,000 tons of ore were smelted by them during the year. An account of the trade of the States will be found in Chapter IV. The actual expenditure of the Public Works Department on Provincial Works in the States was Rs. 64,239, to which must be added Rs. 2,94,851 paid from State Funds. The total expenditure on Public Works in 1910-11 was nearly rupees six lakhs. The States were, on the whole, fairly immune from cattle diseases. A Veterinary Inspector was seconded for service in Hsipaw during the year and two assistants were appointed for South Hsenwi and Hsipaw. The partial failure of the paddy crop in the Kachin Hills was expected to cause a little suffering among the Kachins, but the bulk of the people were well off and able to carry on to the new harvest.

Hsipaw State showed gross receipts amounting to Rs. 5·39 lakhs, an increase of Rs. 18,000 over the previous year. This State has now a closing balance of Rs. 1·12 lakhs and owns in addition Rs. 60,000 of Government paper. The receipts for all five States, including the opening balance of 2 lakhs, were Rs. 13·63 lakhs as against an expenditure of Rs. 11·41 lakhs, leaving a closing balance of Rs. 2·22 lakhs. The corresponding figures for 1910-11 are receipts Rs. 12·71 lakhs and expenditure Rs. 10·70 lakhs. In spite of heavy non-recurring expenditure on the Delhi Durbar which was attended by three out of the five Chiefs, the financial condition of the States improved during the year. There are eight hospitals and dispensaries, which during the year treated

28,052 outdoor-patients and 1,530 indoor-patients. The number of vaccinations performed increased slightly as compared with the previous year. Expenditure on the schools within the States was Rs. 7,609 from Government and Rs. 14,411 from State Funds. The Government Vernacular School at Lashio had 76 pupils and the boarding establishment for the sons of State officials is already full, and more accommodation is required. The Lashio Town Fund increased its balance by more than Rs. 4,000 during the year.

Other Shan States.

83. In Möng Mit the year 1911-12 was uneventful. The agricultural season was not as favourable as that of the previous year and prices of food grains reached a comparatively high level. Crime continued light and the condition of the people generally appears to have remained good. Cattle disease as in former years carried off a considerable number of cattle.

The two Shan States of Thaungthut and Zingalein Kanti again enjoyed a prosperous year. Crops were generally good and relations with transborder villages satisfactory.

(*ii*) *The Chin Hills.*

[*The Chin Hills proper: area (approximately) 8,000 square miles, population 119,556; the Pakôkku Hill Tracts: area (approximately) 2,200 square miles, population 17,128; Hill District of Arakan: area 1,500 square miles, population 22,234; and tracts in the Upper Chindwin, Akyab, and Kyaukpyu Districts.*]

84. Incidents on the external border of the Chin Hills were few and unimportant. A feud which has already caused two murders was settled satisfactorily in the Pakôkku Hills and a raid in which a child was carried off as hostage for an old debt in the Arakan Hills was also settled. Some transborder Kukis who in spite of protests had settled in the Thawna Forest Reserve in the Upper Chindwin District were disarmed and ousted without trouble occurring. Considerable unrest is said to be prevalent among several villages on the border of the unadministered tracts in the main Chin Hills, owing to the non-payment of dues to their parent villages by Chins who have crossed the border and settled in unadministered territory. Crime during the year was unimportant. Civil suits disposed of rose in number but the figures call for no comment.

The crops for the year were bad, owing among other causes to the plague of rats, which is universally attributed by the tribesmen to the flowering of the bamboos. The tribute collected was Rs. 66,153 an increase of over Rs. 3,000 on 1910-11. The Military Police Battalion was reduced by the transfer of one company of Sikhs. The vaccination figures show an increase, and the number of patients treated at the hospital has also grown, in spite of the lack of accommodation and inadequate equipment of that institution. The two Government schools were well attended and the Technical School at Falam shows signs of becoming highly popular.

(*iii*) *The Kachin Hills.*

[*Tracts in the Myitkyina, Bhamo and Katha Districts.*]

85. Relations with transfrontier tribes were satisfactory throughout the year. The principal events were the despatch of two expeditions to Hkāmti Lōng and the Mekh confluence. Both were successfully carried out. Owing to the Chinese revolution there were no frontier meetings with Chinese officials either in Myitkyina or Bhamo. Violent crimes decreased, being six as compared with eight in the Myitkyina hills, six as compared with nine in those of Bhamo and one only in the Katha Hill Tracts. All were murders. In the Myitkyina hills the criminal cases instituted rose by 40 to 116. The number disposed of was 111 as against 84 in the previous year and the percentage of convictions was also greater. In Bhamo 94 cases were instituted as against 60 in the previous year. Cattle thefts increased by eleven, and there was a similar increase in cases for the

CHAP. I.—PHYSICAL AND POLITICAL GEOGRAPHY.

possession of unmarked and unlicensed Kachin guns. In Katha the number of cases fell from 24, an unusually large number, to six. The civil cases brought were all of a petty nature and call for no comment. In Bhamo a considerable number of these cases arise out of claims for sexual offences and illegitimate children. Collections of tribute over all the hills rose slightly to Rs. 49,049, but there was a small decrease in Myitkyina due to the failure of the jade trade. There were no seizures of opium or liquor in the hills during the year, but the sale of liquor to sepoys by Kachins continued to give trouble. Royalties on rubber collected in the hills by the Forest Department decreased considerably.

A new reserve, 52 square miles in area, was notified and settled in the Bhamo District. Reafforestation by means of the *Maibao* tree is reported to be acceptable to the people in the Sadôn Hill Tracts. In Katha the people of the hills are being encouraged to take to permanent cultivation at the foot hills or in the uncultivated valleys. The jade stone exported fell from 66,680 viss valued at Rs. 1·53 lakhs to 16,745 viss valued at Rs. ·49 lakh, owing to the failure of the demand from China on account of the revolution. Increased supplies of amber from the Hukong valley were brought in. The Burma Gold Dredging Company won gold valued at Rs. 3·64 lakhs, as against Rs. 3·43 lakhs in the previous year. Inter-village roads were well maintained on the whole. Rupees 7,000 was spent on new roads in Bhamo and in Myitkyina; a very good road to Htawgaw and Lauhkaung has been made by the Public Works Department.

Condition of the People.

86. The agricultural year 1911-12 was a poor one, both in Upper and Lower Burma, but the inferior character of the harvest was atoned for by the high prices prevailing. The cultivating proprietor, therefore, as a rule, did well, and considerable reduction of indebtedness took place in parts of Lower Burma. Agricultural labourers also where their wages, usually payable in kind at harvest, were not forestalled by advances during the rains, profited by the rise in prices. A very considerable proportion of the agricultural population, however, particularly among tenants and labourers, are dependent for their subsistence during the working season on loans at high rates of interest, which are barely covered by the produce obtained by them at harvest. High prices affect these people prejudicially and they no doubt suffered during the year. The non-agricultural population, except in so far as its members are also landholders, were also adversely affected. The demand for labour, however, is in many parts still in excess of the supply. In Sagaing and Yamèthin, the two districts of Upper Burma, which suffered most, a sufficient supply of labour could not be obtained for irrigation works and in the south-east of the Province planters also continue to find a difficulty in hiring indigenous labour. The fact that the scarcity price rates as laid down in the Famine Code have been every where exceeded without bringing any serious distress to light in any portion of the Province is an effective proof of the resisting power now possessed by the Agricultural population.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REFERENCES :—

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1912.
Land Records Administration Report of Burma for the year ending the 30th June 1912.
Agricultural Statistics of India, Volume I.

Realization of the Revenue.

Demand, collections, remissions and outstandings.

87. The present paragraph deals only with ordinary Land Revenue. Other receipts will be found dealt with in Chapter V, Revenue and Finance. The demand of ordinary land revenue for the year 1911-12 rose from Rs. 260·41 lakhs (revised figures) to Rs. 261·06 lakhs. This increase is, however, apparent only inasmuch as the substitution of land revenue for part of the *thathameda* tax in the Pakôkku District increased the demand by Rs. 2·70 lakhs in that district. If this addition be discounted there was a decrease in the total land revenue assessment of the Province of some two lakhs due to abnormal floods in the Irrawaddy basin and short rainfall in the dry zone. In Hanthawaddy the floods were even more destructive than in the previous year, the area unassessed on this account rose to 85,806 acres and the demand declined by Rs. 1·13 lakhs. Thatôn and Toungoo suffered in a less degree, but the introduction of enhanced rates after revision settlement in one township of the first named district more than compensated for the decline.

In Upper Burma Thayetmyo showed large increases both in assessed area and in demand owing to faulty assessment of dry crop cultivation in former years. Elsewhere increases in assessed area were shown only by Pakôkku, Minbu and Magwe. In the last named two districts the season was comparatively favourable, but the increase in Pakôkku is due to the introduction of acre rates on land hitherto unassessed as the result of the recent settlement, and the additional revenue demand of Rs. 2·70 lakhs fell short by over a lakh of the *thathameda* demand it was intended to replace. The remaining dry zone districts show large reductions in assessed area, compensated to some extent by an enhancement of rates in the Lower Chindwin District as a result of the late settlement. The canal areas in the irrigated tracts did well but outside of them there were large decreases. Increases of assessed area and demand were reported from all districts along the Arakan and Tenasserim seaboard.

As a result of the unfavourable season remissions increased heavily and amounted to Rs. 7·11 lakhs or 2·72 per cent. of the demand, as compared with 1·95, ·86 and ·4 per cent. in the three preceding years. In Hanthawaddy the amount remitted totalled Rs. 3·09 lakhs and in Ma-ubin just under Rs. 2 lakhs, in both cases as a result of floods. Special officers were appointed in seven districts to assist Township officers in disposing of applications for remission.

The total collections fell by Rs. 1·39 lakhs and totalled Rs. 254 lakhs only, a smaller sum than in any year since 1907-08, and outstandings rose slightly to Rs. 33,633.

Revenue proceedings and coercive processes.

88. The returns of coercive processes do not show those for the recovery of ordinary land revenue separately. Under all heads of land revenue application for process against defaulters was made for Rs. 9·31 lakhs of which Rs. 7·43 lakhs was realised. Both figures were smaller than those reported last year and the percentage of recovery fell from 82·17 to 79·79. Warrants of arrest increased by 888 and warrants of attachment fell by 803.

CHAP. II.—ADMINISTRATION OF THE LAND.

Actual arrests were however only 86 in excess of the previous year and commitments to jail fell from 69 to 56. Sales of moveable and immoveable property both decreased.

Surveys.

Surveys by Imperial agency.

89. Topographical work was carried out during the year by Nos. 10 and 11 Parties of the Survey of India Department in the Bhamo, Katha and Myitkyina Districts of Upper Burma, in Karenni and in the Salween District of Lower Burma. An area of 4,367 square miles was surveyed on the 1-inch scale, 1,628 square miles on the $\frac{1}{4}$-inch scale and 324 square miles on the 2-inch scale of forests falling in the area topographically surveyed during the season. A theodolite survey of 186 linear miles of forest boundaries was also carried out. Tidal operations were continued at Rangoon and Moulmein.

Surveys by Provincial agency: Extension and Revision surveys.

90. No Revision Surveys by special staff were organised in the Province during the year, but temporary establishments of unattached surveyors carried out revision surveys under the Superintendent of Land Records in eight districts of Lower Burma. The recess work of the revision surveys completed in the Kyaukpyu and Mergui Districts in the previous year was also finished. Special extension surveys under a special Superintendent were re-started during the year but were confined to the district of Bassein, where an area of 32 square miles was cadastrally surveyed.

A small staff was also engaged in the Hanthawaddy District on the survey by prismatic compass of an area of 71 square miles recently formed by accretion from the Gulf of Martaban.

Town and Fishery surveys and surveys of leased areas.

91. Lack of funds prevented much expansion of Town Surveys. In Rangoon Town the areas excluded from Cantonments were demarcated and good progress was made with the special revision surveys initiated in the previous year. The towns of Syriam and Tantabin in Hanthawaddy were surveyed and also Mergui.

Three more towns in the Katha District were also completed. Fishery surveys were confined to the Tharrawaddy District where a special staff under the local Superintendent of Land Records was engaged on a prismatic compass survey, the maps being plotted on the 4-inch scale.

The issue of *pattas* for ordinary cultivation is practically restricted to the Arakan and Tenasserim Divisions. Leases for special crops such as rubber, cotton and castor-oil were made in the Tenasserim and Pegu Divisions, and in the Myitkyina District. Applications for mining leases in Tavoy were still numerous. Special surveyors were paid out of fees deposited under the Burma Mining Rules for the demarcation and survey of areas in the Pakôkku District given under prospecting licenses or mining leases to various companies for mineral oil winning. A special staff was also employed to lay out the available waste areas under the Môn Canal in the Minbu District and their allotment to cultivators was placed in the hands of a special officer.

Settlements.

Progress of Settlements.

92. Five settlement parties were at work up to November 1911 when a sixth party was formed to take up the settlement of the Pegu District. Soil classification and the collection of statistics were completed over 1,224,000 cultivated acres during the year. No settlements were actually carried through to the final stage but field operations were practically completed in Amherst, Insein, Myaungmya and Yamèthin. In the Myingyan District good progress was made and the year's work included an enquiry into the alleged communal tenures of the district, an innovation in the holding marking of the poorer areas designed to facilitate the work both of Settlement and Land Records and a simplification of the previous

system of soil classification. In Pegu more work was done than was laid down in the programme and it is now hoped to complete the district in four years instead of five.

Financial results and expenditure.

93. Four settlements were sanctioned during the year. The Pakôkku Settlement took four and a half years to complete and cost Rs. 4·64 lakhs. The new rates introduced from January 1912 were estimated to produce an increase in revenue of Rs. 49,000 but it is doubtful whether this will be obtained in ordinary years. The first circuit of Hanthawaddy took three years to settle at a cost of Rs. 2·51 lakhs. The resulting rates sanctioned from July 1912 are expected to produce an increase of Rs. 4·84 lakhs. The second circuit of Thatôn cost Rs. 1·39 lakhs and took two years to settle. The enhancement of revenue expected from the new rates also sanctioned from July 1912, is Rs. 1·98 lakhs.

The second settlement of the Meiktila District was carried out at a cost of Rs. 2·31 lakhs, spread over three years, and is calculated to produce an ultimate increase of nearly 23 per cent. over the demand at the rates previously in force.

The total cost of the Department for the year, including the settlement share of the Settlement Commissioner's office was slightly under five lakhs of rupees.

Land Records.

Area under Supplementary Survey.

94. The total area under supplementary survey was increased by 901 square miles owing to the expansion of the system in the Pakôkku and Thayetmyo Districts. The gross area over which the Department annually maintains its maps and records now slightly exceeds fifty thousand square miles. The area under permanent occupation and the cultivated area expanded approximately three and two per cent. to 16½ and 12½ million acres respectively. The unfavourable character of the season however caused the area for assessment to fall by seven thousand acres. Supplementary survey operations were carried on in 161 towns during the year. Small building extensions in almost every town gave rise to an increase of 2,848 acres in the area under occupation which now totals 90,314 acres. More squatters also took out leases and the assessed area expanded by 1,961 acres to 72,074 acres. The assessment again rose by more than a lakh and amounted to Rs. 9·22 lakhs, exclusive of Municipal taxes. Rangoon Town, which contributed more than half the provincial increase, Hanthawaddy and Tharrawaddy showed the largest expansions.

Cost of Supplementary Survey.

95. The total cost of the supplementary survey establishment amounted to Rs. 15·61 lakhs as against Rs. 14·70 lakhs, the revised figures for the previous year. The cost per occupied acre rose from Re. 1·453 to Re. 1·495. Six Inspectors and thirty-four surveyors were added to the staff to cope with increased work in the Thayetmyo, Pakôkku and Lower Chindwin Districts, the full cost of additions made last year in Pegu and Rangoon Town was for the first time felt, and the coronation bonus, extended protection of survey marks in towns, and larger binding charges for records, all contributed to the enhanced expenditure. The percentage of cost to the total assessment rose from 4·92 to 5·19 and here in addition to the foregoing the check to the expansion of revenue caused by the bad season produced considerable effect. In estimating the actual cost to Government of the operations, it has to be remembered that certain services such as the survey of oil-fields, preparation of wages returns, and record of prices current are performed by the Department without any corresponding book credit.

Training of Officers.

96. There were 19 Government Survey Schools in the Province during the year with a daily average of 298 pupils on the rolls. The attendance and number of pupils appearing for examination are steadily decreasing but the demand for qualified surveyors continues to be good. Sixty-eight first grade scholarships of Rs. 10 and 144 second grade scholarships of Rs. 5 were available. All, however, were not allotted and it has been decided to abolish the second grade scholarships and replace them by 72 additional scholarships

CHAP. II.—ADMINISTRATION OF THE LAND.

of the first grade. Scholarship payments amounted to Rs. 14,367. The total expenditure on the schools was Rs. 39,000 against an income of Rs. 3,682, leaving a net cost of Rs. 35,318. The number of candidates from Government Survey Schools who qualified at the Syndicate examination in April 1912 was 215 in Surveying, 163 in Arithmetic and 172 in Revenue Law, the percentages of passes on the number sitting for examination being 79, 65, and 69 respectively. The condition of the schools was generally satisfactory. The annual examination of apprentices was held in most districts and 62 per cent. of candidates obtained the certificate of proficency. Personal instruction of the district staff in the field by the Superintendent was continued in most districts and in Yamèthin a temporary camp of surveyors received valuable teaching. The control of the Survey Training Camp for junior and probationary Superintendents was transferred from the Survey of India to the Department during the year. The greater portion of the training took place at Yamèthin but two months were spent in studying Topographical work with No. 10 Party of the Survey of India in the Katha District. Three probationers left the camp during the year and five junior Superintendents and one probationer joined it. The instruction given was thoroughly practical and results were good.

Transfers of land.

97. In Lower Burma the area sold during the year increased from 403,620 acres to 455,259 acres and the area mortgaged from 222,144 acres to 259,572 acres. There was also a rise in mortgage value from Rs. 29 to Rs. 35 per acre. The total area under non-usufructary mortgage in the Lower Province was 1,105,618 acres as against 1,019,714 acres in the previous year. These figures appear to indicate that the period of depression caused by the collapse of the land boom some 5 or 6 years ago has come to an end. The extraordinary rise in the price of unhusked rice during the past two years has induced a general spirit of speculation and this has been accompanied by an expansion in the supply of credit. In Pyapôn, Hanthawaddy and Myaungmya money-lenders are now more willing to make advances on the security of land and in other districts such as Henzada and Pegu the high prices of produce have enabled cultivators to purchase land from the Chetties. In Myaungmya increased areas have been mortgaged to obtain advances for extensions and for paddy trading. The shrinkage in the total area redeemed which has fallen to 169,295 acres for Lower Burma is probably to be explained on similar grounds.

In Upper Burma both the areas sold and mortgaged during the year increased, half the area sold being in the irrigated districts of Mandalay and Kyauksè. The total area is however small and no inferences of value can be drawn from the figures.

Waste Lands.

Grants and leases for cultivation.

98. The area granted or leased for cultivation showed an increase of 6,025 acres over the figures for the previous year, the total area dealt with being 45,000 acres. Mergui heads the list with 20,000 acres, chiefly leases of rubber estates, which also account for most of the land leased in the other districts of this division and in the Hanthawaddy and Myitkyina Districts.

Revenue-free grants of land and assignments of land revenue.

99. Revenue-free grants for religious or public purposes were normal in area. There was a large decrease from 1,289 to 470 acres in the area granted as an appanage of the office of headman but it is difficult to find land suitable for allotment in most districts. The increase in the total value of assignments of land revenue was Rs. 1,155 but the present figures cover 15 instead of 12 months. The total value of these assignments at the end of the year was Rs. 52,961.

Government Estates and Wards' Estates.

100. The character of the land tenures in Burma is fully explained in paragraphs 39 *et seq.* of this Report. Apart from Government land of the kinds

therein described there are no Government estates in the special sense of particular cultivated areas managed by Government after the fashion of a private landlord. There are no ward's estates.

Revenue and Rent-paying Classes.

Area held by agriculturists.

101. The area occupied by agriculturists showed a slight expansion owing to the inclusion of the Pakôkku figures in the returns for the first time, and now amounts to approximately 85 per cent. of the total occupied area. Of non-agriculturists, residents hold about 6 per cent. and non-residents about 9 per cent. In five districts of Lower Burma the area held by non-agriculturists exceeds one-quarter of the total occupied area, and in Hanthawaddy and Pyapôn it rises to 38 per cent.

Tenancies.

102. The exclusion of tenancies in which the rent is a share of the produce from the returns deprives them of importance for Upper Burma where most rents are of that character. The provincial area let at full fixed rents was almost the same as in the preceding year, but the average rent rose from Rs. 11¾ to Rs. 14½ per acre, as a result of the high prices ruling at harvest. Most rents are paid in produce. In nine districts of Lower Burma over a quarter of the occupied area is let at full fixed rents and in the Pyapôn District 46 per cent. of the occupied area is so let. The number of tenants who have rented the same holding continuously for five years showed a decrease and is less than 13 per cent. of the total body of tenants.

CHAPTER III.

PROTECTION.

REFERENCES:—

Report on the Police Administration of Burma for the year 1911.
Report on the Rangoon Town Police for the year 1911.
Resolution on the Reports on Village Administration in Burma for the year 1911.
Report on the measures adopted for the extermination of Wild Animals and Poisonous Snakes in Burma during the year 1911.
Reports on the Administration of Criminal Justice in Burma for the year 1911.
Report on the Prison Administration of Burma for the year 1911.
Reports on the Administration of Civil Justice in Burma for the year 1911.
Note on the working of the Registration Department in Burma for the year 1911.
Report on the working of the Indian Companies Act in Burma for the year 1911-12.
Report on the working of the Rangoon Municipality for the year 1911-12.
Resolution reviewing the Reports on the working of Municipalities in Burma during the year 1911-12.
Administration Report of the Public Works Department, Burma (Buildings and Roads Branch) excluding Irrigation, for the year 1911-12.
Administration Report of the Commissioners for the Port of Rangoon from the 1st April 1911 to the 31st March 1912.
Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1911-12, Part III, Shipping.
Report on the Maritime Trade and Customs Administration of Burma for the official year 1911-12.
Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.
Annual Statement of Coasting Trade and Navigation of British India.
Statistics of British India, Parts II, V, VI and VIII.
Report on Government Steamers, Vessels and Launches in Burma for the year 1911-12.

Legislative Authority.

The Original Council.

103. By a Proclamation issued by the Governor-General in Council on the 9th April 1897 under section 49 of the Indian Councils Act, 1861, the territories for the time being under the administration of the Chief Commissioner of Burma were constituted a Province to which the provisions of the Indian Councils Act, 1861, touching the making of laws and regulations for the peace and good government of the Presidencies of Fort St. George and Bombay, should be applicable; and the Chief Commissioner of Burma for the time being, Sir Frederick William Richards Fryer, K.C.S.I., of the Indian Civil Service, was appointed the first Lieutenant-Governor of the Province, with all the powers and authority incident to such office. By the same Proclamation the first day of May 1897 was specified as the date from which these provisions should take effect, and the number of councillors whom the Lieutenant-Governor might nominate for his assistance in making laws and regulations was fixed at nine. The Council then constituted as legislative authority remained unchanged from 1897 up to 1909, when its personnel and powers were enlarged by the Indian Councils Act, 1909.

The Present Council.

104. The Council thus enlarged consists of the Lieutenant-Governor as President and of a maximum of fifteen ordinary members. One member is elected by the Burma Chamber of Commerce; the remaining fourteen are nominated by the Lieutenant-Governor with the sanction of the Governor-General. Not more than six members may be officials; the rest must be non-official; and at least four must be selected from the Bürmese population, one from the Indian, and one from the Chinese community. The Lieutenant-Governor may also nominate two

official or non-official expert members having special knowledge of subjects connected with proposed or pending legislation. The term of office for non-official members is three years; for official or expert members three years or such shorter period as the Lieutenant-Governor may determine at the time of nomination. The Regulations under the Act provide that it shall not be lawful for the Lieutenant-Governor to nominate so many officials that officials shall be in a majority upon the Council.

CHAP. III.—PROTECTION.

105. The Legislative authority of the Council extends over the territories administered by the Local Government.

Extent of powers.

The restrictions to the exercise of its powers are, by virtue of section 43 of the Indian Councils Act, 1861, as follows:—

It shall not be lawful for the Lieutenant-Governor in Council, except with the sanction of the Governor-General previously communicated to him, to make Regulations or take into consideration any Law or Regulation for any of the purposes next hereinafter mentioned, that is to say:—

(1) Affecting the public debt of India, or the customs duties, or any other tax or duty now in force and imposed by the authority of the Government of India for the general purposes of such Government:

(2) Regulating any of the current coin or the issue of any bills, notes, or other paper currency:

(3) Regulating the conveyance of letters by the Post Office or messages by the electric telegraph within the Presidency:

(4) Altering in any way the Penal Code of India as established by Act of the Governor-General in Council No. XLV of 1860:

(5) Affecting the religion or religious rites and usages of any class of Her Majesty's subjects in India:

(6) Affecting the discipline or maintenance of any part of Her Majesty's military or naval forces:

(7) Regulating patents or copyright:

(8) Affecting the relations of Government with foreign Princes or States.

By the Act of 1909 the Council is empowered to discuss the annual Financial Statement of the Local Government, and any matter of general public interest; and members may ask questions, subject to conditions imposed by rules framed by the Local Government.

106. Under section 5 of the Indian Councils Act, 1892, the Lieutenant-Governor in Council may from time to time, by Acts passed under and subject to the provisions of the Indian Councils Act, 1861, and with the previous sanction of the Governor-General, but not otherwise, repeal or amend, as regards the Province of Burma, any Law or Regulation made either before or after the passing of the Indian Councils Act, 1892, by any authority in India other than the Burma Council. It is provided, however, that an Act or a provision of an Act so made by the Burma Council, and subsequently assented to by the Governor-General in pursuance of the Indian Councils Act, 1861, will not be deemed invalid by reason only of its requiring the previous sanction of the Governor-General under the above section.

Further powers of Council.

Course of Legislation.

107. During the legislative year which ended on the 31st March 1912 four Bills were passed as Burma Acts II and III of 1911 and I and II of 1912. These are the Burma Municipal Amendment Act, 1911, the Burma Military Police Amendment Act, 1911, the Burma Forest Amendment Act, 1912, and the Burma Towns and Village Amendment Act, 1912. The first Act was introduced as a Bill into the Council during the year 1910-11 but was not published as an Act till the following year. The remaining Acts were all introduced into Council during the year of report. Two other Bills, the Rangoon Hackney Carriages Bill and the Rangoon Port Amendment Bill, were also introduced during the year but they

Work of Legislative Council.

CHAP. III.—PROTECTION.

did not become law till after the 31st March 1912. As will be noticed, no independent legislation was enacted by the Council during the year.

The principal objects of the Burma Municipal Amendment Act were to give the Municipal Committee greater powers of control over the demolition and reconstruction of buildings—operations which have in the past often proved a source of danger to the public—and to provide for the payment of annuities to officers and servants of a Municipal Committee, who are not provided for by its provident fund. Other provisions of the Act provide an indemnity clause for the protection of Municipal authorities and servants, similar to the indemnity clauses in the Calcutta and Madras Acts, and provide for the suppression of illicit slaughtering of cattle and for the regulation of laundries. The Burma Military Police Amendment Act is a small Act passed with the object of conferring upon Deputy Superintendents of Police the same disciplinary powers in regard to the Military Police as are conferred on Assistant Superintendents of Police under the Burma Military Police Act of 1887. The Burma Forest Amendment Act amends the Burma Forest Act of 1902 so as to empower the Local Government to sanction the disafforestation of forest land, subject only to the control of the Governor-General in Council, to levy a royalty on manufactured lac and on the by-products of crude lac and to impose a duty on forest produce brought from territories to which the Burma Forest Act does not extend, but which are under the control of the Local Government. It also provides a penalty for the non-return of time-expired licenses. The Burma Towns and Village Amendment Act is a small measure which amends both the Burma Towns Act, 1907, and the Burma Village Act, 1907, in several distinct but minor respects. The principal of these amendments are intended to provide for more adequate means of transport for the public service in sparsely populated districts and to give greater powers of control in village-tracts over the movements of criminals and bad characters and over the checking of the spread of disease among human beings and cattle.

General Acts affecting Burma.

108. The undermentioned General Acts affecting Burma were passed by the Governor-General in Council during the year:—

General Acts of 1911.

XIII.—The Indian Christian Marriage (Amendment) Act, 1911.
XIV.—The Court-fees (Amendment) Act, 1911.
XV.—The Indian Forest (Amendment) Act, 1911.
XVII.—The Indian Air-ships Act, 1911.

General Acts of 1912.

I.—The Indian Stamp (Amendment) Act, 1912.
II.—The Co-operative Societies Act, 1912.
III.—The Indian Post Office (Amendment) Act, 1912.
IV.—The Indian Lunacy Act, 1912.
V.—The Provident Insurance Societies Act, 1912.
VI.—The Indian Life Assurance Companies Act, 1912.

Regulations affecting Burma.

109. No Regulations affecting Burma were enacted during the year.

Extension of Enactments to Shan States.

110. The Indian Railways Act, 1890, was extended to the Myelat and to the State of Yawnghwe in the Southern Shan States; while the Opium Act, 1878, the Indian Arms Act, 1878, and the Excise Act, 1896, were extended to such lands in the Myelat and in the State of Yawnghwe as were, or may at any future time be, occupied by the Southern Shan States Railway.

NOTE.—The Burma Steam-boilers and Prime-movers Act, 1910, which was mentioned in paragraph 37 of the General Administration Report of Burma for the year 1910-11 as having been passed during that year, did not come into force till the 1st November 1911.

Police.

CHAP. III.—PROTECTION. Civil Police: strength, recruitment and cost.

111. The sanctioned strength of the Civil Police-force excluding the Rangoon Town Police at the end of 1911 was 1,343 officers and 13,971 men, as compared with 1,335 officers and 13,957 men at the close of the previous year. Five Probationary Assistant District Superintendents arrived from England in December and were posted to the Training School at Mandalay. Five District Superintendents retired and three officers of the Indian Army appointed to the Police in 1906 reverted to Military employ. The cadre of Inspectors was increased by three. The shortage in strength was reduced during the year to 44 officers and 621 men, the lowest figures for some years. An increase of Rs. 2 in the minimum pay of constables in the Hanthawaddy District and the high prices of food-stuffs ruling during the year of report are said to have improved recruiting. Suitable recruits are however still obtained with difficulty in many districts owing to the smallness of the pay and the lack of prospects of promotion to the higher ranks. The cost of the force increased from Rs. 54·83 lakhs to Rs. 56·46 lakhs as a result of the closer approximation of the actual and sanctioned strengths and enhanced expenditure on travelling allowances.

Conduct, education and training.

112. The total number of dismissals for all causes was 8 officers and 502 men, or a decrease of 3 officers and 16 men as compared with the figures for 1910. Magisterial punishments also decreased, but there was a slight increase in the number of men dismissed departmentally, and also in that of men punished departmentally otherwise than by dismissal. Cases in which policemen were found guilty of the ill-treatment of prisoners and witnesses were few during the year of report. They were invariably severely dealt with and wide publicity was given to the punishments awarded. There was an increase of 49 literate officers and 503 literate men during the year, the percentage of literate to actual strength being now 86. Fewer old constables underwent training at the depôts than in the previous year but the percentage of qualifications rose from 89 to 92. More recruits underwent training and the percentage of casualties before the completion of training fell from 16 to 15. Ninety-seven per cent. of the recruits appearing for the final examination qualified. The percentage of passes in the quarterly examinations fell to 87, but the number of first class certificates obtained increased. The results of musketry training showed an advance on those of the previous year, and courses of instruction in first aid were given in many districts. The Provincial Police Training School at Mandalay had a successful year and the achievements of the officers and cadets both in work and games were satisfactory.

Buildings.

113. One and a quarter lakhs were provided in the Budget of 1911-12 for Civil Police buildings, and two lakhs under the head of Petty Construction and Repairs. Of this last amount one lakh was assigned to meet the cost of renting buildings for the occupation of men not provided with quarters. The want of funds for police buildings continued to be a source of much difficulty.

Crime and the working of the Police.

114. The total number of true cognizable cases dealt with by the Courts and Police was 41,916 or an increase of 1,327 cases over the previous year. Tharrawaddy heads the list with an increase of 483 cases and Yamèthin, Minbu and Meiktila all show an increase of over 200 each. Where decreases occur it is mainly in the case of minor offences and serious crime appears everywhere to be on the increase. The growth of crime is especially noticeable in the Upper Province where the number of true cognizable cases under Classes I to V dealt with during the year of report rose by 1,086 cases, as against a rise of only 280 cases in Lower Burma.

Murders and attempted murders reported during the year of report increased by 37, grievous hurt cases by 162 and cases of kidnapping and abduction by 40. Of serious offences against property, dacoity and preparation for dacoity showed 159 true cases reported, an increase of more than 50 per cent. over the previous year. Robberies were more numerous by 134 true cases or 34 per cent. and cattle thefts by 593 true cases or 21 per cent. The increase in cattle thefts was

CHAP. III.—PROTECTION.

in Lower Burma almost entirely confined to the Pegu Division. If the true cases of all classes of violent crimes be taken together the total increase is 18 per cent. as compared with the figures for the year 1910.

Sixty-six per cent. of the true cases investigated by the Police ended in conviction, and the general results as compared with those of the previous year show that, in spite of the larger number of cases dealt with, the success of the Police with regard to detection and prosecution of offences remained the same, though a slight falling off in regard to dealing with persons is noticeable.

Important incidents.

115. The following are some of the more important incidents of the year. The house of a wealthy widow in Thayagôn Village, Hanthawaddy District, was attacked by five dacoits armed with revolvers and spears who carried off cash and jewelry valued at Rs. 15,417 At Bawmi Village in the Pegu District ten men attacked a house and are said to have taken Rs. 9,200 in currency notes. Six dacoits attacked a house at Winkabaw Village in the same district. One of the dacoits who was armed with a Winchester repeating rifle was shot dead. A successful defence was made by the Karen inhabitants of Yebawthaung Village also in this district against a gang of five dacoits armed with two guns, and two of the dacoits were captured. In the Prome District eight dacoits attacked a house in the village of Nwegyan where a military police patrol were halting. Two of the dacoits were killed and constable Maung Chan Tha who headed the attack on them was granted the King's Police Medal for his plucky action. In Myanaung Town ten natives of India of whom seven were Pathans attacked the house of a chetty, and meeting with no resistance carried off Rs. 15,329. The accused were arrested the following day and subsequently convicted. Most of the property was recovered. Combined action in the Toungoo District between the Magistrates and police led to the surprise of a body of dacoits attacking a house in Zeyawadi Village. The leader of the dacoits was shot dead and the whole gang subsequently accounted for. Two incidents reflecting on the courage of the police occurred, the first being an attack by four men with a flint lock gun on a village in Kyaukpyu District in which certain police officers were halting. No attempt at resistance or following up the robbers was made, though they were subsequently arrested and convicted. The second case was the failure of the constables present at the outpost of Wagyiaing in the Magwe District to arrest three robbers who entered the house of the officer in charge during his absence and after beating his wife decamped with property valued at Rs. 236. In both cases serious punishments were inflicted. Two cases of kidnapping followed by murder occurred in the Prome District, one being that of a Chin lad and the other that of an old man. The same district was also responsible for the brutal murder of a girl of eight years of age by a woman who after enticing the child away removed her ornaments and then beat her to death. In the Sagaing District two little children about six years of age were also murdered for the sake of their ornaments. In the Tharrawaddy District a murder was committed with the alleged object of obtaining human blood for use in making a charm or patent medicine, and an encounter with armed Chin cattle thieves in the Minbu District ended in the death of the owner of the cattle who was with the pursuing party. An Inspector of Police in Yamèthin was murdered by a notorious criminal who entered his bedroom to steal his fire-arms. The Inspector grappled with the thief but received several fatal stabs to which he succumbed next day.

Offences under Special Acts.

116. The number of prosecutions under the Excise Laws advanced by 608, 4,857 true cases having been dealt with as against 4,249 cases in 1910. The Thatôn District shows the most noticeable increase. Of cases brought to trial 89 per cent. ended in conviction : 78 per cent. of the persons arrested and 80 per cent. of the persons tried were convicted.

The largest seizures made during the year were 17,543 tolas of ganja in Toungoo, 22,330 grains of cocaine in the Hanthawaddy and 15,552 grains in the Tharrawaddy District and 7,718 quarts of various kinds of liquor in the Amherst District.

A scent known as "Kananga water" a bottle of which mixed with lemonade or soda water will make an ordinary person intoxicated is said to be freely sold in coffee shops in the Ma-ubin District. Samples of this scent are being chemically examined with a view to possible further action. CHAP. III.—PROTECTION.

There was a decrease of 140 prosecutions under the Opium Act during the year of report. Ninety-six per cent. of the cases dealt with and 97 per cent. of the cases tried ended in conviction. All districts continued to show good working. The largest seizure of opium was 14,437 tolas in the Akyab District.

Prosecutions under the Gambling Act increased by 833, 73 per cent. of the cases dealt with and 75 per cent. of the cases tried ending in conviction. Under section 17 of the Gambling Act 101 professional gamblers were ordered to furnish security for good behaviour.

Prosecutions under the Arms Act decreased by 23 to 420. Ninety-four per cent. of the cases dealt with and 96 per cent. of those tried ended in conviction. The total number of persons licensed under the Act fell to 2,084. The number of cases in Lower Burma in which air-guns have been reported to be used in dacoity or robbery cases is noticeable.

117. Non-cognizable crime rose from 32,379 cases in 1910 to 32,630 cases in the year of report. Of the 38 true cases of offences against the State the Myinmu rebellion in the Sagaing District was responsible for 35 cases. Non-cognizable crime.

118. Two thousand, two hundred and fifty persons were prosecuted under sections 109 and 110 of the Criminal Procedure Code and 82 per cent. of this total were called upon to furnish security. Both the number of persons and the percentage of successful prosecutions are larger than in the previous year. Prosecutions were fairly well conducted in all districts; the action taken was mainly directed against dangerous criminals and organisers of crime, and proper supervision is generally exercised in the selection of persons to be proceeded against. In the Shwebo District a notorious gang of dacoits was broken up by a successful prosecution of its members under these sections, and two leaders of separate bands of cattle thieves were also successfully proceeded against. The successful prosecution of the members of a gang of dacoits in the Sagaing District and their imprisonment led to the recovery of four guns belonging to them and the obtaining of evidence against them in two cases of dacoity. At the close of the year 13,984 criminals were under police surveillance, out of which number 2,424 were in jail and the whereabouts of 1,084 were not known. The percentage of persons not traceable remains the same as in the previous year. One thousand five hundred and ten absconders were advertised in the *Police Crime Gazette* during the year of whom 28 per cent. were arrested. The number of offenders reconvicted was 4,481 of whom 4,478 were identified by the police before sentence and three by jail officials after sentence. The finger impression slips in the Finger Print Bureau were all overhauled during the year. Village headmen and villagers in most districts continued to render valuable help to the police in the investigation of crime and in the arrest of criminals but failure to offer resistance to robbers and dacoits is complained of in some districts. Forty-one persons escaped from police custody as against 39 in the previous year. Three convicts escaped from the Andamans of whom one was shot and one recaptured; the third man's dead body was subsequently found. Preventive sections, surveillance and identification.

119. Punitive police were entertained for six and nine months respectively in two townships of the Tharrawaddy District. The force sanctioned for one year in the Prome District in 1910 was disbanded during the year of report. In the Amherst District a punitive police-force was imposed on fifteen villages as a result of the refusal of the inhabitants to surrender unlicensed fire-arms, and three punitive forces of Military Police were imposed in the Sagaing, Shwebo and Lower Chindwin Districts on the inhabitants of certain villages suspected of connivance in the Myinmu rising in November 1910. The post in Shwebo was, however, only established after the close of the year of report. Punitive Police.

CHAP. III.—PROTECTION. Railway Police.

120. The sanctioned strength of the Railway Police was 59 officers and 350 men. At the close of the year of report the sanctioned strength was short by 2 Sub-Inspectors and 6 constables, but the vacancies with the exception of one Sub-Inspector have since been filled. Dismissals show a decrease as compared with the previous year but the enforcing of the responsibility of train patrols for efficient working led to an increase in other departmental punishments. The work of the training depôt was on the whole satisfactory and the number of casualties decreased by fourteen.

The number of true cases of cognizable crime dealt with rose from 1,183 to 1,240 cases. Of these 98 per cent. were investigated by the police and 830 cases or 68 per cent. ended in conviction as against 60 per cent. convicted in the previous year. Eight true cases of violent crime were dealt with, and in three cases a conviction was secured. Out of 90 cases under the Excise Act, 85 ended in conviction, and under the Opium Act the percentage of conviction was 96. There were 110 absconders on the register of whom 16 only were arrested. All the 88 persons with previous convictions reconvicted during the year were identified by the police before sentence.

Military Police.

121. The actual strength of the Military Police-force on the 1st January 1912 was 15,941 officers and men or 457 below the sanctioned strength. The increasing demands of other Battalions for men for duty in the open season is a severe tax on the strength of the Reserve Battalion which consists of eight companies or 921 men. The administration of the Myitkyina Battalion which now consists of some 2,000 men with 19 posts in the open season is growing in difficulty and the departmental report foreshadows the consideration of remedial measures. The discipline of the force on the whole was very good. Departmental punishments and desertions both decreased during the year, and the small increase in the number of men judicially punished is due principally to the trial of deserters. The relations of the men with the people were as usual satisfactory. The number of men invalided during the year of report fell by 101 to 626 and the number who went on sick leave to India from 723 to 569. The percentage of admissions to hospital, however, showed a slight increase. Recruits to the number of 2,096 were enlisted during the year of report, indigenous races being represented by 78 Kachins, 1 Chin, 116 Karens and 14 Shans. The physique of Indian recruits especially of Sikhs is reported not to be so good as it was. The cost of transport rose from Rs. ·87 lakh to Rs. 1·04 lakhs owing to the rise of the price of paddy in all districts. There were 128 casualties among transport animals and 120 were purchased. Remounts purchased numbered 147 and there were 149 casualties Musketry practice was good.

No funds were allotted for major works during the year, and many estimates are kept pending for lack of funds. The total expenditure under Petty Construction and Repairs was Rs. 63,000. Detachments of Military Police accompanied the Hpimaw, Hkāmti Lōng and Mekh-kha Expeditions in the Myitkyina District and that to Makware in the unadministered tracts bordering on the Upper Chindwin District. The work done was throughout excellent. There were 3 escapes of prisoners from Military Police custody as against 5 in the previous year.

Rangoon Town Police.

122. The sanctioned strength of the Rangoon Town Police-force was increased by one officer and one man during the year of report and at its conclusion stood at 79 officers and 1,009 men. The establishment was 7 men short on the 31st December 1911, but the vacancies were filled up early in January. The cost of the force rose by Rs. 9,936 to Rs. 5,21,268. There were 20 dismissals and 16 removals of men from the force, a large increase on the figures for 1910. Discharges were however only three in number and there were fewer resignations than in the previous year. Minor departmental punishments were also reduced in number, 5 officers and 195 men having been punished as against 11 officers and 262 men in 1910. Twenty officers and 466 men were rewarded from the reward fund or received commendation certificates or were commended by Magistrates. The number of men trained

at the Kemmendine Depôt rose from 256 to 303. Of these, 157 were men sent for recurrent training and 146 were recruits. In addition to these recruits five European Sergeants and one head constable were enlisted and sent to the Depôt for training. There were 17 casualties among the men during training and of the remainder 86 passed out of the Depôt leaving 43 men under training at the end of the year of report. The supply of recruits of standard height and chest measurement was in excess of the demand. The prevailing financial stringency prevented the construction of all the additional quarters required and proposals for an increase to the force are still under the consideration of Government.

There was no faction fighting in the town during the year of report and only three riots two of which were of a petty character. The most important took place on the outskirts of Rangoon during the *Bakr-i-id* owing to the provocation given by a Mahomedan. Two bamboo huts were burnt and four persons were beaten, but the measures taken prevented the excitement from spreading and the rest of the town remained quiet. The system of registering coolies in the Surati bazaar was continued with success. The total number of true cases of cognizable crime fell by 57 cases to 11,199. Of these 1,523 cases only fall under Classes I to V which alone can be regarded as true crime. Non-cognizable crime dealt with by Magistrates showed a large increase from 5,034 cases in 1910 to 7,029 cases in 1911, as a result of more numerous prosecutions under the Municipal and Cruelty to Animals Acts. In crime of the more important type there was a decrease of 7 cases of murder, attempts at murder or culpable homicide, and one of 26 cases in grievous hurt, but an increase of 12 cases in hurt by a dangerous weapon. Lurking house trespass and kindred offences decreased by 18. Detection improved and the percentage of conviction to true cases rose from 52 to 55. The percentage of persons convicted to those arrested also increased from 75 to 80. Out of 82 cases in the Court of Session convictions were obtained in 52 cases, and there were 10 cases pending at the end of the year. Excise cases numbered 513 and 92 per cent. ended in conviction. Prosecutions under the Opium Act were instituted in 426 cases, and 386 cases ended in conviction. Under the Gambling Act there were 20 cases and 17 convictions. Four persons were served with notices under section 3 of the Foreigners' Act of 1864 and made to leave the country The European Police-force remained at 18 throughout the year and its general conduct was satisfactory.

Village administration.

123. The total number of village headmen in the Province declined from 17,948, the revised figure for 1910, to 17,806, the fall being mainly due to a reorganisation of village administration in the Lower Chindwin District where subordinate headmen had in the past been appointed in large numbers to small hamlets unsuited for the formation of independent village-tracts on the splitting up of the *Myothugyiship* to which they belonged. Headmen of circles receiving the entire commission on revenue collection throughout their charges showed a diminution and the number of subordinate headmen receiving no commission again fell from 3,286 to 2,904. In return the number of headmen of independent village-tracts drawing full commission rose to 13,581. The number of headmen invested with special criminal powers increased from 966 to 1,061 and of those with special civil powers from 1,307 to 13,77. These special powers were generally exercised with judgment and the possession of them continues to be a much coveted honour. The fines inflicted by headmen fell to Rs. 1·34 lakhs. More attention was paid to the revision of headmen's orders by district officers than in previous years and the percentage of confirmations rose to the satisfactory figure of 97. The work of the headmen in connection with the collection and assessment of revenue continued to be efficiently carried out. Their relations with the Police improved, and, though apathy is still the rule in Excise matters, they gave ready assistance in the reporting and detection of crime. There was an increase in the number of dismissals largely owing to the action taken against the headmen in the Sagaing and Lower Chindwin Districts who were implicated in the Myinmu rebellion. Fines, however, declined and there was an increase in the number of headmen rewarded. The Myinmu rebellion also led to an increase in the villages fined in the Sagaing District; the Prome and Tharrawaddy Districts also showed more villages fined mainly for failure

CHAP. III.—PROTECTION.

to resist dacoits and other criminals. The Track Law was administered with greater vigour during the year and more villages were fined under its provisions.

Wild animals and snakes.

124. The total mortality caused by wild animals and snakes among human beings during 1911 was 1,500 as compared with 1,353 in 1910. The number of persons killed by wild animals has fallen from 80 to 63, the largest number killed in any one district being 6 in Pegu and in the Upper Chindwin. Deaths decreased in the Upper Chindwin from 17 to 6 and in Tavoy from 16 to *nil*, but in these districts the previous year's figures were exceptional. Snake bite accounted for 1,437 deaths as against 1,273 in 1910. The largest increases were in Sagaing, Pakôkku, Prome, the Lower Chindwin and Myingyan, but no reasons are given for the increased mortality. Sir Lauder Brunton's lancets were again distributed. There are as usual conflicting reports as to their utility. Men are usually bitten in the paddy fields and unless the victim has the lancet actually on his person it is in most cases impossible to treat the wound in time.

The total mortality of cattle in 1911 was 14,444, a decrease of 5 on the figures for the previous year. Of these 7,933 were killed by wild animals and 6,511 by snakes, showing an increase of 82 and a decrease of 87 respectively. The figures for individual districts vary greatly from year to year, but where increases occur it is to the depredations of tigers or leopards that the enhanced mortality is usually attributed. Cattle killed by snakes rose in Sagaing from 347 to 653. The number of wild animals destroyed rose from 3,225 to 3,719 and Rs. 55,938 was paid in rewards as against Rs. 49,390 in 1910. Thirty-four alligators were destroyed in Mergui, but the offer of rewards has now been withdrawn. The number of snakes destroyed rose from 10,549 to 99,964 owing to the offer of rewards in the Hanthawaddy and Tharrawaddy Districts as an experiment. It is as yet impossible to say whether any permanent reduction in the number of snakes has been effected. Eight hundred and forty-four licenses under the Indian Arms Act for the protection of crops or for the destruction of wild animals were issued in 1911, thus bringing the total number of licenses in force during the year up to 1,685 as against 1,523 in the previous year.

Criminal Justice.

General.

125. The administration of Criminal Justice during 1911 was under the control of the Chief Court in Lower Burma and under that of the Judicial Commissioner in Upper Burma. These were assisted in Lower Burma by 71 European, 239 Native Magistrates and thirty benches of Honorary Magistrates, and in the Upper Province by 76 European, 134 Native and seven benches of Honorary Magistrates.

No important legal enactments or rules affecting the administration of Criminal Justice came into force during 1911.

Cases.

126. The total number of cases reported for the whole Province was 99,999, of which 75,173 were in Lower Burma, the largest figure ever reached in the Lower Province. Eighty-five thousand and fifty-eight cases were returned as true. The increase in reported cases was 1,410 in Lower Burma and 1,611 in Upper Burma. In Lower Burma the figures for the more serious categories of crime continue to rise. Murders and attempted murders have now reached 318, an increase of 34 over 1910, to which Tharrawaddy and Amherst contributed 18 and 10 respectively. Robbery and dacoity cases reported as true increased from 240 to 284 and from 71 to 100 respectively and cattle thefts rose by 112 to 1,827, an increase for which Prome, Pegu and Thayetmyo were mainly responsible. The number of complaints summarily dismissed fell from 2,491 to 2,162, and the percentage of cases returned as true to the number of reported offences was 84·39 as against 83·32 in 1910.

In Upper Burma there were increases in the number of thefts and of cases under special and local laws, the Excise Act, and the Police and Forest Acts. There was a large decrease in offences under the Municipal Act, principally in Bhamo and Mandalay. In true cases there was a satisfactory decline in cases under hurt, culpable homicide, murder and rape, though cases under criminal force and assault and under grievous hurt increased and there was a general rise in cases relating

to offences against property. Forty-two cases under Chapter VI of the Indian Penal Code all related to the abortive Myinmu rebellion of the previous year. Complaints summarily dismissed fell by 53 to 855 and the percentage of true to instituted cases rose from 86·13 to 87·07. CHAP. III.—PROTECTION.

127. The number of cases brought to trial was 74,164 affecting 130,793 persons in Lower Burma and 24,114 affecting 47,404 persons in the Upper Province. In Lower Burma the number of cases tried by District Magistrates fell from 702 to 582. Honorary Magistrates disposed of 21,772 cases, an increase of 1,901. The percentage of cases tried summarily to the total number of cases was 40·6 as compared with 38·5 in 1910. Disposal of cases.

The percentage of convictions in trials before Magistrates was 59·57, a fractional decrease on the figures for the previous year, Akyab, Myaungmya and Amherst showing the lowest percentages.

The number of persons against whom proceedings were held with a view to demanding security to keep the peace rose from 88 to 144 and in 91 per cent. of the cases security was required. On the other hand proceedings for the requirements of security for good behaviour were taken against 1,963 persons only, a drop of 244 on 1910. The percentage of convictions was 77·3 as compared with 79·4.

The total number of cases committed to Sessions rose from 544 to 602. The Hanthawaddy Division had the largest number of cases, *viz.*, 150. The percentage of convictions was 90·9 as against 83·3.

The number of cases committed to the Chief Court was 86 involving 133 persons as against 95 and 135 persons in 1910. The percentage of conviction was 59·6 as against 49·2. The total number of sentences of death referred to the Chief Court was 88 as compared with 89 last year. In 50 cases the sentence was confirmed. The average duration of cases in Magistrates' Courts was 13 days, the same as in 1910. In courts of session the duration rose from 48 to 51 days. The number of witnesses examined again increased from 286,812 to 288,660.

In Upper Burma District Magistrates disposed of 628 cases, an increase of 126, 339 of these cases being tried under special powers. The percentage of convictions in these special power cases rose from 63·87 to 68·70.

The percentage of convictions before Magistrates was 58·72, within a fraction of the figure for the previous year.

Benches of Honorary Magistrates disposed of 3,872 cases as against 3,587 cases. Sessions Courts decided 182 cases as against 153, the increase being entirely due to the cases connected with the Myinmu rebellion in 1910. The percentage of convictions was 64·29 as against 68·90, that in the Sessions Court of Meiktila being only 51. Action under the preventive sections of the Code of Criminal Procedure was taken against 677 persons. Security to keep the peace was required from 50 persons and to be of good behaviour from 429 persons, as against 52 and 291 persons in 1910. Applications for maintenance rose by 191 cases to 1,519, and of these 837 met with success. The average duration of cases rose from 11 to 13 days.

128. In Lower Burma the number of persons punished in Magistrates' Courts increased from 69,385 to 69,998. There was a rise in all classes of punishment except rigorous imprisonment both with and without solitary confinement and imprisonment in default of furnishing security for good behaviour. Whipping in lieu of any other punishment was inflicted in 134 cases more than last year, and 124 juveniles were whipped as against 79 in 1910. The percentage of actual to possible whipping increased from 18·4 to 20·8. This increase is welcomed by the Judges of the Chief Court as indicating that whipping has taken the place of short sentences of imprisonment in a considerable number of cases. Such short sentences, however, still showed an increase (from 2,432 to 2,766 cases), which the Judges regard unfavourably. The amount of fines imposed was Rs. 5,05,015 as against Rs. 5,58,410, the decrease being due to greater care in regulating the fines by the income of the person fined. There was a decrease of nearly Rs. 4,000 in compensation awarded under section 545, Criminal Procedure Code. First offenders released under section 562, however, increased in number from 718 to 962. Punishments.

CHAP. III.—PROTECTION.

In Upper Burma the number of persons punished rose from 23,578 to 25,550. The percentage awarded fine without imprisonment again fell from 82·98 to 80·56. The percentage of those sentenced to rigorous imprisonment without solitary confinement rose from 12·21 to 13·00. Whipping either in lieu of or in addition to other punishments was awarded in 466 instances, as against 459 in 1910. Fines imposed rose by Rs. 30,000 to Rs. 2,36,721, of which 85·80 per cent. was recovered. There was an increase in the compensation awarded under sections 250 and 545 Code of Criminal Procedure.

Appeals.

129. Appeals in Lower Burma decreased from 7,277 to 6,630. Appeals to the Chief Court increased from 916 to 955. The general percentage of sentences confirmed on appeal rose fractionally from 70·3 to 70·4. The average duration was 20 days as against 18 days in 1910.

In Upper Burma appeals rose from 2,044 to 2,216, and the percentage of confirmations was 64·96 or 2·89 lower than 1910. The average duration of appeals rose from 11 to 19 days, the increase being largely due to the press of work in the Court of the Judicial Commissioner where appeals increased from 182 to 286, mainly on account of the cases connected with the Myinmu rising.

Revisions.

130. In Lower Burma District Magistrates called for 5,625 cases in revision as against 5,443 in 1910. Sessions Judges called for fewer than in the previous year but revisions by the Chief Court rose to 768 as against 721 in 1910.

In Upper Burma District Magistrates disposed of 2,991 cases. The number of cases called for under the Criminal Justice Regulation was 1,936 and those otherwise called for 1,256. The Judicial Commissioner had before him 862 cases for disposal. In a percentage of 85·92 as compared with 87·13 in 1910 the decisions of the Lower Courts were confirmed.

Prisons.

Accommodation.

131. The accommodation for males in the prisons of the Province in the year 1911 reached 14,922 places, or an increase of 104. The accommodation for females was 354 places, the same as in the previous year. Calculated on the daily average number of prisoners of all classes (16,281), the total accommodation available was exceeded by 1,005, but taking the convict class alone (15,339) the capacity was overtaxed to the extent of 1,456. The convict accommodation in nearly all the jails of the Province, especially in Lower Burma, was overcrowded. Whenever possible, transfers were made to relieve the congestion. In other cases the best possible arrangements were made to ameliorate the overcrowding by a judicious redistribution of the prison population. During the year certain proposals were considered for increasing the accommodation at some of the existing jails by extensions to them, and it is expected that, if all the schemes are given effect to, additional accommodation for 849 convicts will become available. As a result of the overcrowding, difficulty was generally experienced in obtaining suitable employment for the prisoners. Shot drill, however, was reduced to a very small minimum, in consequence of certain jails, where this was carried on in 1910, having succeeded in obtaining remunerative labour for the prisoners.

Prisoners.

132. The year opened with a population of 15,728 prisoners of all classes; 37,716 were received and 38,232 were discharged, leaving the number in confinement at the close of the year at 15,212. The increase in admissions amounted to 98 only compared with 1910, while the discharges increased by 2,463, this large number being accounted for by the fact that 2,871 prisoners were released on the 12th December 1911 in connection with the celebration of the Imperial Durbar held at Delhi. Compared with the previous year, the admissions of convicts to Jail decreased by 110 and the daily average convict population increased by 1,410. The number of youthful offenders, boys and girls under sixteen years of age, admitted to jail was 139, an increase of two over the figures of the previous

year, and 263 juveniles, compared with 207 in 1910, were sent to the jail to be whipped. The percentage of reconvicted prisoners rose from 24·04 to 24·85, the highest figure appearing at Meiktila (40·74) and the lowest at Mônywa (9·68). Of the 43 juveniles, all males, under fifteen years of age, admitted during the year, 10 had been previously convicted, the corresponding figures for 1910 being 44 (42 males and 2 females) and 10, respectively. Eleven of the juveniles were transferred to the Reformatory School at Insein. Compared with the previous year there was a decrease of 91, 14 and 9, respectively, as regards sentences of simple imprisonment, rigorous imprisonment with whipping and rigorous imprisonment alone, while the sentences of rigorous imprisonment with solitary confinement increased by 4. The identification of habitual prisoners was effected before conviction in 4,733 cases, and in jail in 32 cases.

Discipline.

133. During the year there were recorded 34,554 offences, against 34,708 in 1910, a decrease of 23·91 per cent. notwithstanding a rise of 1,410 in the daily average convict population. Penal diet was awarded in 2,847 cases against 2,039 in 1910. This form of punishment, however, was not resorted to without taking into account the physical fitness of the prisoners so punished. The number of offences dealt with by Courts increased by 12, those relating to prohibited articles by 661 and miscellaneous offences by 105. Offences relating to work decreased by 687 and those relating to assaults, mutiny, and escapes by 245. Of the assaults which occurred during the year, only one proved fatal. Whippings were inflicted on 96 prisoners; of these, 72 were habitual and 24 were casual prisoners. There were 4 escapes against 5 in 1910. The whole four, who escaped, were recaptured during the year. The daily average number of habitual prisoners in confinement was 6,413 or 41·81 per cent. of the total daily average population. Considerably more than half of all the prison offences were, as usual, committed by habituals.

Financial.

134. The nett cost of maintenance of prisoners per head fell from Rs. 49-13-0 to Rs. 48-9-0. The saving to Government arising from the employment of prison labour on jail works and repairs was Rs. 15,429-15-9, as compared with Rs. 22,449-14-9 in 1910. The value of the convict labour supplied to the Jail Branch Press is estimated to have been worth Rs. 59,539, but no credit for this amount is taken in the jail accounts. The value of vegetables raised in the jail gardens increased from Rs. 85,856 to Rs. 97,507 and the farm produce from Rs. 25,787 to Rs. 27,223.

Vital.

135. The health of the prison population was satisfactory; the death rate, *viz.*, 12·28 *per mille* was slightly higher than it was the previous year, when it was 11·98 *per mille*. Mogôk (39·62), Kyaukpyu (38·08), Henzada (32·03) and Katha (27·90) returned the highest percentage of opium consumers admitted to jail.

Miscellaneous.

136. The Juvenile Jail at Meiktila continued to be worked on the Borstal System. In all, 157 boys were admitted to this jail, the daily average number in confinement being 110. Training was given in carpentry, bamboo and cane work, shoe-making, tinsmith work, polishing, timber sawing and blacksmith and wheelwright work. Several of the boys became quite proficient in the trades they had been taught. The conduct of the juveniles was, as a rule, excellent. A few bad characters were, on the recommendation of the Committee of Visitors, removed from the jail. Five boys were whipped for assaults or fighting, four of the offenders being habitual prisoners. The school work was favourably reported on by the Deputy Inspector of Schools. Out of 61 boys presented for examination, 52 passed, the great majority being in the two lower standards. A *Póngyi* (Buddhist monk) preaches to them on Sundays and a Roman Catholic priest and a *Moulvie* (Mahomedan priest) have visited the jail from time to time. The Inspector-General of Prisons, who visited the Juvenile Jail at Meiktila during August and October 1911, considered the general management to be satisfactory. The system of manual training for young convicts, introduced in the Rangoon Jail last year, was continued with marked success. The convicts under training

CHAP. III.—PROTECTION.

are reported to have taken keen interest in their work, made excellent progress, and to be well-behaved. That the moral effects of the training have been satisfactory was manifest from the fact that there was no serious breach of jail discipline among the convicts forming the special class under training. The employment of female prisoners at Mandalay was further developed during the year. Needle work, embroidery and lace-work were taught and several of the female prisoners attained a fair degree of proficiency. Close attention continued to be paid to the separation of habitual and non-habitual prisoners. The structural alterations necessary to this end were completed at three jails, while at five others they were nearing completion during the year. Proposals for additions or alterations to four jails were received during the year At one of these four jails the work is in progress, at another it is pending for want of funds while, in the remaining two cases, orders had not been passed during the year 1911. The remission system continued to work satisfactorily and is stated to be appreciated by the majority of the prisoners and to have a considerable effect in promoting good behaviour. As an act of clemency, on the occasion of the Imperial Durbar held at Delhi on the 12th December 1911, 2,871 prisoners were released on that date, consequent on the grant of special remission. Besides, 8,166 other prisoners benefited by the grant of the Delhi Durbar remission. In all 5,294 were neither released nor granted remission, including 182 prisoners in whose cases remission was, for certain grave reasons, withheld by the Deputy Commissioners concerned. Religious instruction continued to be imparted by Buddhist monks to the prison population, and their ministrations are believed to have a good effect.

Civil Justice.

Courts.

137. The administration of Civil Justice during the year 1911 continued to be under the control of the Chief Court, Lower Burma, and of the Judicial Commissioner, Upper Burma. Of the two Additional Judges entertained temporarily in 1910 one continued to act until the end of February, and the other until the 24th December from which date a fifth Judge was permanently appointed An Additional Judge of the Court of the Judicial Commissioner was again entertained for part of the year.

The cadres of the Provincial and Subordinate Judicial Services were revised, the former being increased by seven appointments and the latter reduced by one. The Judicial Service in Lower Burma contained 42 European and 136 Native judges and that in Upper Burma 58 European and 128 Native judges.

Suits.

138. In Lower Burma the number of suits instituted fell by 40, while Upper Burma shows an increase of 95. The progressive diminution which has occurred annually since 1906 may now be regarded as at an end. The percentage of suits for money or moveable property to the total of suits rose in Lower Burma from 89·6 in 1910 to 90·3 in the year of report. Suits for immoveable property again decreased from 1,224 to 1,173 and mortgage suits from 2,332 to 2,074. These decreases are attributed to stricter administration of the Revenue Law and to the wider knowledge and more rigid enforcement among judicial officers of the provisions of the Transfer of Property Act. In Upper Burma the percentage of suits for money or moveable property to the total number of suits fell slightly from 91 to 90·5 per cent., and suits for immoveable property decreased by 53, while mortgage suits rose from 349 to 512.

The total value of suits fell again in both Provinces; in Lower Burma by 16¼ lakhs and in Upper Burma by Rs. 1,79,000. The number of pending cases at the close of the year fell in Lower Burma from 7,024 to 6,426, a figure considerably smaller than any recorded for the past few years. In Upper Burma pending cases increased by 165 to 1,928. The percentage of suits disposed of without contest remained at approximately the same figure as last year in Lower Burma, but there was a slight fall in the Upper Province. The duration of contested cases rose from 84 to 87 days in Lower Burma and from 60 to 61 in Upper Burma. The slight increase in Upper Burma is attributed by the Judicial Commissioner mainly

to unavoidable causes, chief among which was the additional touring by Subdivisional and Township Judges, who are, as a rule, also executive officers, on account of the Census operations. In Lower Burma the Judges of the Chief Court attribute the increase partly to the fact that the new orders regarding mortgage cases only came into force towards the middle of the year, but they also express the opinion that Judges are too ready to grant adjournments at the request of parties to a suit without considering the convenience of witnesses. They point out that the figures are worse than for any year since 1900 and suggest that it may be necessary to take special action to improve existing conditions unless the figures for 1912 are reduced.

Miscellaneous cases fell in Lower Burma from 8,841 to 8,610 but rose in Upper Burma from 2,285 to 2,398. Applications for execution of decrees fell in Lower Burma from 40,711 to 40,110, but the percentage of applications wholly infructuous was only 54·1 as against 56·7 in 1910. The amount realised was, however, 5 lakhs less than in 1910. In Upper Burma applications for the execution of decrees fell to 12,550 from 13,089 and the proportion of wholly infructuous applications rose to 48·87 from 45·81 in 1910. The amount realised also showed a slight increase. The number of judgment debtors imprisoned fell by one-seventh to 600 in Lower Burma but rose in Upper Burma from 105 to 113. The Judges of the Chief Court express the opinion that in spite of the decrease a number of persons are imprisoned through misfortune rather than any fault of their own, while others escape by making use of the Provincial Insolvency Act, 1907.

Insolvency cases decreased from 471 to 452 in Lower Burma, but increased by 15 to 195 in the Upper Province, where the discharge of judgment debtors was granted in 61 per cent. of cases as against 50 per cent. in the previous year.

In Upper Burma only 224 headmen, out of 486 empowered under the Village Act to try Civil cases, exercised their powers, and the cases disposed of were 1,995 in number or 17 more than in 1910.

Appeals.

139. Appeals from Township to District Courts in Lower Burma decreased from 1,974 to 1,954 and the number of disposals from 2,035 to 1,880. The percentage of confirmations was 65, a fractional increase on 1910. The average duration fell from 61 to 58 days. Pending cases increased from 297 to 371. The number of appeals to Divisional Courts rose in Lower Burma from 451 to 494, and the average duration fell from 110 to 108 days. The percentage of confirmations was 65·7 as against 65·1 in the previous year.

In Upper Burma 1,929 appeals came before the District Courts for disposal as against 1,963 in 1910. Disposals amounted to 1,487 compared with 1,594, and duration rose from 72 to 88 days. Divisional Courts had 13 appeals before them as against 12 in 1910 and all were disposed of, but the duration rose from 66 to 110 days.

The Chief Court.

140. The number of suits instituted on the Original Side of the Chief Court was 420 as against 521 in 1910, and the aggregate value fell by 11½ lakhs. The number of suits disposed of was 731 as against 442 in 1910. This is the largest number ever reached and was only reached by the undivided attention of three Judges for the first two months of the year and two for the remainder being given to the work. The delegation of certain powers to the two Deputy Registrars has also facilitated work and pending cases have dropped from 613 to 302. Of the suits disposed of 278 or 38 per cent. were contested as against 36·2 per cent. in 1910. Plaintiffs were successful in 74·5 per cent. of contested cases decided as against 66·3 per cent. in 1910. The average duration of contested and uncontested cases fell from 429 and 244 days to 354 and 234 respectively. Seven and a half lakhs were realised in execution of decrees as against 10½ lakhs in 1910. Under the Insolvency Act the cases disposed of fell from 80 to 69.

The number of regular appeals instituted and disposed of was 395 and 385 as against 393 and 356 in 1910. The average duration rose from 314 days to 359. Pending appeals again increased and numbered 441. Decrees were confirmed in 70·4 per cent. of cases as against 68 per cent. in 1910. Two hundred and

CHAP. III.—PROTECTION.

eighty-one cases came before the Court on revision as against 283 and 192 were disposed of as against 171 in 1910.

The Court of the Judicial Commissioner, Upper Burma.

141. The Judicial Commissioner, Upper Burma, had before him 537 appeals, of which 204 were pending from the previous year. Two hundred and sixty-seven cases were disposed of as against 397 in 1910, and 270 cases were left pending. Of the disposals 157 appeals were decided by the Additional Judge. The percentage of confirmations was 65·17 as against 61·46 in 1910 and the duration rose from 232 to 249 days. The rise in duration and decrease in disposals were both due to the illness of the presiding officer. Two hundred and eighty-three cases came before the Court in revision as against 291 in 1910. The percentage of confirmation was 81·21 or 7·71 higher than in the previous year and the average duration rose from 146 to 148 days.

General.

142. The second edition of the Courts Manual has now been issued and new copying rules have been introduced.

Registration

General.

143. No alterations of note have been made in the working of the Registration Department during 1911. Three new offices have been opened, bringing the total number of offices up to 156. An amendment has been made in the directions to exempt from registration mortgage deeds executed by officers in Civil or Military employ for securing the repayment of house building advances made to them by Government. Seven additional non-official sub-registrars were appointed during the year.

Deeds registered.

144. The total number of compulsory registrations in the whole Province affecting immoveable property and the aggregate value of the instruments registered are the largest yet recorded. The increases as compared with 1910 are Rs. 5,600 and Rs. 27,61,602 or 12 and 4 per cent. respectively. There is a general decrease in the value of instruments of sale of the value of Rs. 100 and upwards, amounting to 31 lakhs in Lower Burma and 38 lakhs in the Upper Province. Of this total however 38½ lakhs come from the Rangoon Town and Hanthawaddy Districts, and 36½ lakhs from the Magwe District of Upper Burma, as the result of the fall in the price of oil wells and sites at Yenangyaung. Instruments of mortgage show an increase both in number and aggregate value from Rs. 19,836 and Rs. 2,09,03,548 in 1910 to Rs. 23,208 and Rs. 2,31,13,314 respectively, but the average value decreased from Rs. 1,054 to Rs. 996.

The total of Registrations in Book IV, increased by 659 in number but decreased in value by Rs. 1,65,459.

Income and Expenditure.

145. The income received increased as a result of the increased number of registrations by 7·85 per cent. The expenditure also increased and now amounts to 52 per cent. on the total income of the Province from registration.

Joint Stock Companies.

146. Twenty-four new Joint Stock Companies, limited by shares, were registered under the Indian Companies Act (VI of 1882) during the year 1911-12. Seventeen Companies wound up their business, leaving 122 Companies working at the end of the year. Nine of the new Companies are connected with mining or mineral oil and two were formed for the purpose of rubber planting. Two Laundry Companies in Rangoon are a new feature in the Industrial activities of the Province. The only non-Rangoon Companies were a rice milling concern with its office at Mawlamyainggyun in the Myaungmya District, and two prospecting companies in Upper Burma. The Chinese Steamship Company, Limited, with a nominal capital of Rs. 23·10 lakhs provided over a quarter of the total nominal capital of Rs. 92·18 lakhs returned by the 24 companies. The 9 mining and

mineral oil companies provided Rs. 50 lakhs of the remainder. In 1910-11, 27 new Companies were formed with Rs. 209·18 lakhs of nominal capital. Thirty-seven Joint Stock Companies increased their capital during the year, the aggregate increase under issued-nominal and paid-up capital respectively being Rs. 77·34 lakhs and Rs. 33·01 lakhs respectively. Twelve Companies reduced their capital, their aggregate issued-nominal capital falling by Rs. 13·37 lakhs, and their paid-up capital by Rs. 2·01 lakhs. Seventeen Companies with an aggregate nominal capital of Rs. 103·33 lakhs, issued-nominal capital of Rs. 45·55 lakhs and paid-up capital of Rs. 43·04 lakhs were wound up during the year. Of these the Bank of Burma, Limited, with a nominal and paid-up capital of Rs. 20 lakhs and Rs. 17·62 lakhs respectively is the most important. One of the Companies wound up was reconstituted and appears in the list of new registrations. Seven Companies limited by guarantee were working during the year.

Local Boards Administration.

147. There are no Local Boards in Burma. The District Funds in Upper and the District Cess Funds in Lower Burma are administered by the Deputy Commissioners of the districts to which they belong. Some account of their receipts and expenditure is given in Chapter V (*Revenue and Finance*).

Municipal Administration.

Rangoon Municipality.

148. The ordinary income of the Rangoon Municipality rose from Rs. 36·99 lakhs to Rs. 40·65 and ordinary expenditure from Rs. 34·71 lakhs to Rs. 36·58 lakhs during the year 1911-12, and at its conclusion the closing balance was Rs. 27·40 lakhs. A proposal to reduce the scale of taxation was submitted by the Committee, but in view of the many important problems of administration still requiring solution it failed to obtain the approval of Government. The water-supply of the town failed to give complete satisfaction and the ineffective working of the Hlawga pipe-line on several occasions led to the appointment of a special Sub-Committee. Its proposals, which were accepted by the Committee, included the examination of a subsidiary scheme of tube wells and the engagement of a European expert to advise on the whole question of the water-supply of the town. A crusade against glanders was organised by the Veterinary Department during the year and though many stables are still reported to be insanitary a great improvement in the health of the ponies in the town was secured. Schemes for the improvement and better maintenance of the roads and for the erection of new Municipal offices were before the Committee during the year and the drafting of a new Municipal Act for Rangoon has been undertaken. The birth rate rose to 18·31 *per mille* and the death rate to 38·12 *per mille* and the rate of infantile mortality also increased. A severe epidemic of small-pox involving 1,776 cases with 700 deaths occurred between January and July 1911. Plague also showed signs of recrudescence with 1,612 cases and 1,522 deaths as against 889 attacks and 847 deaths in the previous year.

Vaccinations, both primary and re-vaccinations, showed a large expansion as compared with the figures for 1910-11, as a result of the small-pox epidemic. Little progress was made with the work of reclamation on Town Lands owing to the lack of funds.

Minor Municipalities.

149. The number of Municipalities, excluding Rangoon, was 45, the same as in the previous year. An area of about three square miles containing the new water-works was added to the Moulmein Municipality and minor alterations made in the limits of Thônzè and Ma-ubin. The average incidence of taxation rose from Rs. 2-1-11 to Rs. 2-4-7. Moulmein showed the highest incidence with Rs. 4-8-5 and Taungdwingyi the lowest with 7 annas 5 pies. The revision of assessments at Bassein was completed and further revisions undertaken at Ma-ubin, Wakèma and Insein. At Moulmein arrangements were made for a lump sum contribution by

CHAP. III.—PROTECTION.

the Port Trust annually. The total of grants and contributions rose from Rs. 5·07 lakhs to Rs. 6·32 lakhs. Owing to the institution of the plague nucleus scheme under which expenditure on plague is borne by Provincial funds, recoveries being made from Municipalities, no grants for plague measures were made.

A special non-recurring grant of seven lakhs for sanitary measures was received from the Government of India just before the commencement of the year of report, and from this one and a half lakhs were granted to Pegu for a new bazaar and water-supply scheme, the remainder being reserved for a drainage scheme at Mandalay and further grants to Pegu. From the recurring sanitary grant of three lakhs the following allotments were made: Rs. 63,000 to Moulmein and Rs. 50,000 to Akyab for drainage, to Prome Rs. 35,000, Thônzè Rs. 16,486 and Thayetmyo Rs. 6,314 for water-supply schemes, and Rs. 30,000 to Mandalay, Rs. 26,500 to Syriam, and Rs. 10,000 to Paungdè for the construction of drains. Insein, Pyinmana, Kyauksè and Sagaing also received grants. The expenditure of the Municipalities on public safety increased and at Moulmein a motor fire-engine was purchased and a permanent fire brigade entertained. The improvement of the water-supply received considerable attention. Akyab expended Rs. 70,000 on the extension of its system which continued to work satisfactorily, as did those of Prome and Moulmein. The proposed filtration at Prome has however not yet been carried out. At Bassein the reservoir was completed but in view of an unfavourable report on the scheme from the Sanitary Engineer the question is still under consideration. Water-works are under construction at Thayetmyo and Minbu, but lack of funds has caused the postponement of the scheme for Pyinmana and the abandonment for the present of those at Mandalay and Yamèthin. Schemes for Pegu, Thônzè and Mônywa are still in the project stage.

Schemes for reclamation and drainage work were undertaken at Akyab, where it is proposed to expend Rs. 4 lakhs, Pyapôn, Syriam, Mergui, Sandoway and Kyaukpyu. The projects for Moulmein and Mandalay have so far made little headway. General improvement to houses continued at Prome, Bassein, Paungdè and other towns. Encroachments by the sea and river continued to cause trouble at Akyab and Henzada and the present site of the town of Zalun will probably have to be abandoned from a similar cause. The conservancy scheme for Kyaiklat was under construction during the year of report. The need of improved hospital accommodation was felt in many towns and several schemes for new buildings or the extension of existing ones are under consideration. A new bazaar was constructed at Pegu and improvements to existing bazaars were carried out in other places. As in former years, expenditure on sanitary works adversely affected the money available for roads and in several Municipalities the most necessary repairs could hardly be effected. The situation in Mandalay was however relieved by a grant of one lakh from Provincial funds for the repair of existing roads. There was a slight increase in expenditure on Public Instruction. No Municipal schools were taken over by Government during the year of report. Loans were made to Pegu, Letpadan, Kyaiklat and Toungoo. The results of the annual audit of Municipal accounts were satisfactory. There were seventeen areas notified under the Municipal Act, the same number as in the previous year.

Military.

Strength of the garrison.

150. The total strength of the troops forming the garrison of Burma at the end of March 1912 was 9,623 officers and men, of whom 3,546 were Europeans, as against 9,951 officers and men, of whom 3,614 were Europeans at the end of the preceding year. The British Officers employed on the staff, 41 in number, are not included in the above figures.

Military works.

151. There was again a reduction in the amount expended on military works, the total for the year being Rs. 5·05 lakhs as against Rs. 6·02 lakhs in 1910-11. A sum of Rs. 17,085 was expended on connecting the Rangoon Cantonment water

supply system with the Irrawaddy Flotilla Company's wells at Ahlone, the work being carried to completion within the year. The extension of the piped water-supply at Maymyo to the Indian Mountain Battery Lines was also carried out at a cost of Rs. 5,095. Other works included improvements to barracks at Rangoon and Bhamo and the construction of quarters for the Bakery establishment at Maymyo and Volunteer Sergeant-Instructors at Pegu and Mandalay.

Military (Volunteering).

152. There were six Volunteer Corps in Burma during the year of report. The Rangoon Volunteer Rifles, the Burma Railways Volunteer Corps, and the Rangoon Port Defence Volunteers have their headquarters in Rangoon, the Upper Burma Volunteers have theirs in Mandalay, and the Moulmein Volunteer Rifles and Moulmein Volunteer Artillery are located at Moulmein. The total strength of the six Corps was, at the close of March 1912, 3,374 adults, 622 cadets, and 170 reservists, an increase of 385 on the figures for the previous year. These figures do not include the 39 members of the South Andaman Volunteer Rifles which for administrative purposes is attached to the Rangoon Volunteer Rifles. Two new Companies were added to the Burma Railways Volunteer Corps during the year of report, and proposals were under consideration for the reorganisation of the Rangoon Port Defence Volunteers and the formation of an Infantry (Machine Gun) Company for that Corps.

The capitation and other grants earned by the six Burma Corps amounted to Rs. 1·40 lakhs during the year, and the number of efficients excluding reservists was 3,669.

Marine.

153. Minor works carried out at the Alguada Reef Light-house brought the cost of recent works up to Rs. 46,380. Owing to not infrequent accidents in landing it is considered urgently necessary to build a break-water and boat-dock on this reef and these works will be constructed in the near future as soon as funds have been provided. The chasm below the light-house also requires attention. For this reason the reconstruction of Reef Island Light-house has been postponed until the Alguada Reef works have been fully completed ; the estimated cost of the latter works amount to Rs. 2,09,832 approximately. The boat-dock at Double Island Light-house was enlarged and deepened, but further deepening is still desirable, as well as the construction of a break-water and other improvements, which will be taken in hand when funds become available. A new crane was fitted in place of the old one. The fixed and flashing light on Savage Island Light-house was altered on the 1st January 1912 by the installation of a 55 millimetre incandescent lamp. The alteration increased the candle power of the fixed light from 2,750 to 10,000 and that of the flash from 33,000 to 132,000, and the periods of flash have been accelerated from one flash every sixty seconds to one every five seconds. The alteration in the lamp is a great aid to navigation in those waters. A concrete water-tank was built and other minor improvements carried out. The cliff on which the light-house stands, being subject to heavy erosion, was protected by a reinforced concrete facing. A new beacon was built on concrete piles, on the North Terrible Rocks, west of Kyaukpyu, some 15 miles out at sea. The light at Victoria Point continued to give satisfaction. The unattended Wigham's patent light was exhibited off the west end of Zallataung Island from October 1911 to the end of May 1912. The light is only intended for the fair season. During the year of report the Royal Indian Marine steamers "Mayo", "Investigator" and "Northbrook" were employed at different periods as the station vessel. They visited the light-houses and light-ships and were also employed in carrying out certain other miscellaneous duties. There was a gratifying decrease in the number of cases of beri-beri which fell from 39 to 1. This is attributed to the substitution of cured rice for milled, the studied manner in which the reliefs were carried out, and the particular attention paid by

Light-houses and light-ships.

CHAP. III.—PROTECTION.

the Inspector of Light-houses to the cleanliness of the light-keepers' quarters. The light-ship "Danidaw" stationed at the Baragua Flats broke away from her moorings in July 1911 owing to bad weather. She lost two of her anchors and nearly all her chain and being damaged was brought to Rangoon where she was repaired and re-fitted, and then returned to her station in November 1911. The light-ships "Kemmendine" and "Kalagauk", which are stationed at the Spit and Krishna Shoal, respectively, were also overhauled and thoroughly repaired. The "Martaban", which is the relief light-ship, relieved each of the light-ships mentioned above in turn, when they were brought to Rangoon for overhaul and repairs. The total expenditure on light-houses and light-ships decreased from Rs. 1,83,278 to Rs. 1,77,711. Repairs to light-houses by the Public Works Department cost Rs. 22,529 against Rs. 21,429, while the cost of repairs to the four light-ships also rose from Rs. 14,968 to Rs. 15,173. Charges on account of establishment, provisions, oil, stores and contingencies, etc., amounted to Rs. 1,40,009 as compared with Rs. 1,46,881 in 1910-11. The receipts from Burma Coast-light dues were Rs. 4,16,210 against Rs. 4,38,964 in the preceding year, the decrease being due to the provisional lowering for a period of three years with effect from the 1st May 1911 of the rate at which the dues are levied from one anna and two pies to one anna and one pie per ton of burden. It will be observed that the reduction in receipts in consequence of the lower rate is small.

Port Administration, Rangoon.

154. The income of the Rangoon Port Trust including debt accounts rose from Rs. 42·73 lakhs to Rs. 59·66 lakhs during the year of report. The expenditure similarly calculated increased from Rs. 45·64 lakhs to Rs. 57·67 lakhs. The closing balance on the 31st March 1912 was Rs. 5·98 lakhs, against an opening balance of Rs. 3·99 lakhs. The ordinary revenue excluding debt accounts was Rs. 36·63 lakhs, the increase of roughly 2 lakhs being due to the levy of the river due at the enhanced rate of four annas for twelve months as compared with nine months only in 1910-11. Expenditure advanced by Rs. 2½ lakhs and totalled Rs. 37·07 lakhs, the increased payments to interest and sinking fund and to the Marine and Fire Insurance, depreciation and Revenue reserve funds accounting for the expansion. The annual payments to these funds amounted to over 50 per cent. of the total expenditure of the Port Trust. There was considerable loss on the working of the Traffic and Port Departments which was compensated for by a surplus on receipts from the river due. The net deficit on the year's work was Rs. 6,059. A Rs. 9½ lakhs debenture loan was raised during the year, and Rs. 20 lakhs was received from Government as the final instalment of its Rs. 50 lakhs contribution from Imperial and Provincial Funds to the cost of the river training works. The total liabilities of the Port Commissioners by way of loans amounted to Rs. 254·62 lakhs, against which must be set the sinking fund of Rs. 19·53 lakhs, leaving a debit balance of Rs. 235·09 lakhs. Approximately 55 per cent. of the sea-borne imports into Rangoon, which totalled over a million tons during the year, were landed on the Commissioners' premises. Of the exports, however, 10 per cent. only were shipped over the Commissioners' wharves and jetties. The gross revenue of the Traffic Department fell by 1½ per cent. to Rs. 20·66 lakhs as a result of the reduction of the charge on inland exports shipped into lighters from 6 to 3 annas per ton. The revenue expenditure of the department exclusive of interest and sinking fund on loans for capital works and proportion of general charges was Rs. 8·35 lakhs, a reduction of nearly 9 per cent. as compared with the previous year. Including these charges and also Rs. 12,617 for new works the total expenditure reached Rs. 21·10 lakhs thus showing a loss on the year's working of the department of Rs. 44,000, which was defrayed from the river due. No. 1 berth, Sule Pagoda Wharf, was opened to traffic during the year, thus completing at a cost of Rs. 110·90 lakhs the project for new port works sanctioned in 1904. Among minor works of the year were the alteration of the Eden Street Pontoon, Botataung, for use by ocean-going steamers and the provision of additional pontoons and a new fixed jetty for lighters in other parts of the port. Work on the river training scheme continued and 75 per cent. of the mattress foundation work was completed by the end of the year at a total cost of Rs. 98·18 lakhs. On the wall and apron Rs. 13·79 lakhs was expended during

the year. The bulk of the stone is obtained from the Port Commissioners' quarries on Kalagauk Island. Inland stone hand-placed from barges has to be used at the lower end of the wall where there is not sufficient depth of water to allow of steamers dumping. Difficulties occurred in obtaining a sufficient supply of this stone from contractors and the Commissioners arranged to open a quarry of their own. The revised estimates for the training works amounting to Rs. 150 lakhs were sanctioned by the Government of India during the year of report.

Pilot service, Rangoon.

155. The Pilot Fund opened with a balance of Rs.1,01,916, receipts amounted to Rs. 3,24,979 and expenditure to Rs. 3,38,296, leaving a closing balance of Rs. 88,599. The gross pilotage receipts decreased from Rs. 3,20,568 to Rs. 3,09,008 and disbursements to pilots fell by Rs. 52 to Rs. 1,83,802. A sum of Rs. 21,041 was added to the Pilots' Vessels' Depreciation Fund, which stood at Rs. 1,18,241 on the 31st March 1912. The pilotage service was well maintained. Four vessels only were detained at the Pilot Brig for short periods owing to the unexpected arrival of the vessel in each case. The amendments of the Pilot Rules and Pilot Leave Rules which were under the consideration of Government in the previous year were sanctioned during the year of report.

Minor ports.

156. Excluding the Rangoon Port Trust, there are six ports in Burma for which separate Port Funds are maintained, namely, Bassein, Moulmein, Akyab, Mergui, Tavoy and Kyaukpyu. The receipts from these funds rose from Rs. 4,06,921 to Rs. 4,23,127, while the expenditure declined further from Rs. 4,32,257 to Rs. 4,30,804. The closing balance also fell by Rs. 7,677 to Rs. 2,55,609. All the funds were solvent at the close of the year.

Outside Rangoon, there are Pilot Funds at Akyab, Bassein and Moulmein. They receive the fees for pilotage and disburse the earnings of the pilots, charges for the maintenance of pilot vessels and some other expenses. The funds opened with a total balance of Rs. 22,991 and closed with a balance of Rs. 29,552. Receipts decreased from Rs. 1,17,767 to Rs. 1,05,730 and expenditure from Rs. 1,23,888 to Rs. 99,169. At the close of the year all the funds were solvent. Port Officers appointed by Government and assisted by Advisory Boards continued to manage the ports of Akyab, Moulmein and Bassein. The administration of the ports of Tavoy, Mergui and Kyaukpyu is in the hands of the Deputy Commissioner. These three ports have no Pilot Funds.

Commercial Marine: shipping.

157. The total number of vessels of all kinds that entered ports in Burma in 1911-12 from foreign countries was 504, as against 451 in the previous year. The aggregate tonnage rose again by slightly over 140,000 tons. The number of steam-vessels increased from 421 to 485 and their aggregate tonnage from 1,048,289 to 1,197,027. Sailing vessels declined from 30 to 19, with a corresponding decrease of tonnage from 11,332 to 2,697. Three hundred and fifty-five steamers, with a total tonnage of 957,475, entered Rangoon from foreign countries, as compared with 307 and 845,193 in 1910-11. The increase was due to larger exports of rice. During the year of report the Nippon Yusen Kaisha established a direct cargo service between Japan, Rangoon and Calcutta. Only one sailing ship visited Rangoon, against five in the previous year. Sailing craft are being gradually replaced by steamers in the foreign trade carried on between the Straits Settlements and the ports on the Tenasserim coast.

The number of steamers and sailing ships engaged in the coasting trade, which entered ports in the Province, rose from 3,437 to 3,585, of which 2,228 were steamers, but the total tonnage fell from 2,604,198 to 2,580,715; the tonnage of the steam vessels decreased from 2,552,560 to 2,527,540, while that of the sailing ships increased from 51,638 to 53,175. One thousand and thirty-seven, or nearly one-half of the total number of steamers entered the port of Rangoon, whilst only 121 sailing ships, as against 144 in 1910-11 entered that port. The decrease was principally due to the decline in the shipments of rice to India. Out of the total coasting tonnage of 2,580,715 Rangoon accounted for 1,688,705 tons, the corresponding figures for the preceding year being 2,604,198 and 1,720,685 tons respectively.

Chap. III.—Protection.

The average size of the steamers visiting Rangoon continued to increase. The number of such vessels of above 5,000 gross registered tonnage rose again from 228 to 302, but only five steamers of 29 feet draft left the port, against eleven in the previous year. Of the 504 steamers and sailing vessels that entered ports in Burma from foreign countries, 353 or 70·04 per cent. were British and 43 British Indian. The percentage of British ships in the previous year was 74·28. One hundred and eight vessels sailed under foreign flags, as against 75 in 1910-11. The number of German vessels fell from 35 to 32, while the number of Austrian and Dutch vessels rose from 18 and 8 to 22 and 12 respectively. Japanese vessels advanced from 8 to 32. Six Russian vessels entered ports in Burma in 1911-12, against none in the preceding year.

Commercial Marine: wrecks and casualties.

153. The number of casualties to shipping within the jurisdiction of the Port Commissioners of Rangoon fell from the abnormally high figure of 36 to 23. Seven occurred to vessels in charge of licensed Pilots; seven to vessels in charge of Assistant Harbour Masters; three to vessels in charge of special Pilots; and six to vessels in charge of Masters and Serangs. The steam hopper-barge "Curlew" whilst in charge of her Master, who was a special Pilot, grounded twice, once on the Galloper Sands and again on the North of the Eastern Grove Flats. No report of the grounding of the vessel on these two occasions having been made by the Master he was called upon for an explanation. Being unable to give a satisfactory one he resigned and his resignation was accepted. The vessel did not appear to have sustained any damage whatever.

At Moulmein a Special Court of Enquiry was held under the British Burma Pilots Act, 1883, to investigate the cause of the grounding of the "Kapurthala" in the Moulmein River on the 7th April 1911 whilst in charge of a 1st grade Pilot. The Court found that the Pilot had used an unauthorised channel and was guilty of misconduct. In view however of the fact that the Pilot concerned was reduced in grade for a year and received a warning in connection with the grounding of the "Francesco Musner" in the Moulmein River on the 29th March 1911 it was decided not to take any further action against him.

The "Bhadra" struck an uncharted submerged reef near Kissering Island in the Mergui Archipelago on the 11th February 1912. An enquiry under the Indian Merchant Shipping Act, 1883, was not held in this case as it was considered unnecessary.

Government steamers and launches.

159. The two Royal Indian Marine vessels "Sladen" and "Bhamo" carried by river over six thousand troops and followers besides convicts, transport animals, ammunition, 7,911 tons of stores and 113 lakhs of specie. Their total earnings rose from Rs. 1,76,932 to Rs. 2,04,827. The "Sladen" showed an increase of Rs. 36,937 but the "Bhamo" a decrease of Rs. 9,042. Four new steam-launches, one steam-barge and one house-boat were added to the Government flotilla; two Customs cutters, one schooner and one steam-launch were sold, one steam-launch was dismantled, her hull being sold to the Irrawaddy Flotilla Company and her boilers and engine being utilized in the Mandalay Marine Workshop; and one dredger was converted into a steam-barge. Consequent on these changes the year 1911-12 closed with 132 vessels, consisting of 84 steam-launches, 12 house-boats, 11 flats, 6 barges, 4 light-ships, 2 motor-launches, 2 buoy-vessels, 2 water boats, 2 mooring-boats, 2 dredgers, 2 steam-barges, 1 rock-smashing boat, 1 boat for the conveyance of transport animals, and 1 steam-cutter. The total earnings of Government vessels during the year amounted to Rs. 5,38,911, as against Rs. 5,17,917 in the preceding year, showing an increase of Rs. 20,994. The earnings of the vessels employed in Lower Burma increased, while those of the Upper Burma vessels decreased owing to a certain number of the vessels being utilized on other than transport duties and to there being no Military manœuvres in Upper Burma as during the past few years. The expenditure on the maintenance of these vessels, including 4 per cent. interest on their estimated present value, rose by Rs. 55,068 to Rs. 8,38,601. Eleven launches in Lower and nine in Upper Burma earned more than the cost of their up-keep. The Lower Burma paddle-steamer "Custodian" earned Rs. 47,438, thereby showing a profit of Rs. 25,037 on the

year's working. The Upper Burma vessels "Corsair" and "Indaw" showed a profit of Rs. 15,541 and Rs. 10,533 respectively. The vessels throughout the Province were kept in a state of efficiency. The fuelling arrangements now carried out by the Forest Department are satisfactory. A sum of Rs. 1,00,000 was spent on purchasing the Burma Engineering Company's property at Dawbong for the use of the Marine Department for repairs to Government vessels.

Marine works and surveys.

160. Complete and entirely new surveys of the bed of the Rangoon River within port limits from Liffey Reach to Elephant Point were taken in hand and completed in addition to the ordinary surveys and examinations of the various channels. The channels at the mouth of the river remained steady and in a satisfactory condition, but the hopes raised that a permanent deep channel would be maintained to the west of the Hastings Shoal and Liffey Island have unfortunately not been fulfilled and it now appears to be certain that this object will not be attained without a considerable annual outlay on dredging. The shore light stations were maintained in good order. Owing to the continued erosion of the river bank it was found necessary to move Elephant Point light station to a new site 160 feet inland.

Away from Rangoon the construction of new wharves was put in hand at Mawlamyainggyun and Shwelaung; they are being built on reinforced concrete piles and are about half completed. The stone pier in Akyab harbour, which was damaged by a cyclone, was completed during the year of report, as was also the work of reconstructing the landing-stage at Kyaukpyu damaged during a cyclone in 1910.

The Royal Indian Marine steamer "Investigator" continued the survey of the Tenasserim coast from latitude 13° 33′ N. (the limit of the 1910-11 season) working to the southward including the outlying islands and rocks as far south as 12°40′ N. on Iron Island at the entrance to the approaches to Mergui Harbour and working out to seaward into about 30 fathoms. This includes approximately 100 miles of coast line and 1,500 square miles of sounding and takes in the waterway between Tavoy River and Mergui, and completes the survey of the Tenasserim Coast from Moulmein to Mergui on a scale of 1 inch to 1 mile.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

REFERENCES:—

Report on the Operations of the Department of Agriculture, Burma, for the year ending the 30th June 1912.
Annual Report on the Civil Veterinary Department, Burma, for the year ending the 31st March 1912.
Season and Crop Report of Burma for the year ending the 30th June 1912.
Report on the Land Revenue Administration of Burma during the year ended the 30th June 1912.
Report on the working of the Co-operative Societies Act in Burma for the year ending the 30th June 1912.
Administration Report of the Irrigation Department, Burma, for the year 1911-12.
Agricultural Statistics of India, Volume I.
Area and Yield of certain Principal Crops in India.
Annual Report of the Agri-Horticultural Society of Burma for the year 1911.
Reports on the Forest Administration in Burma for the year 1911 12.
Report on the Census of Burma, 1911.
Resolution on the Reports on the working of the Indian Factories Act in Lower Burma for the year 1911.
Report on the Maritime Trade and Customs Administration of Burma for the official year 1911-12.
Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1911-12, Part I, Foreign Trade, and Part II, Coasting Trade.
Review of the Trade of India.
Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volumes I and II.
Annual Statement of the Coasting Trade and Navigation of British India.
Note on the Transfrontier Trade of Burma and the adjoining Foreign Countries during the year 1911-12.
Administration Report of the Public Works Department, Burma (Buildings and Roads Branch), excluding Irrigation, for the year 1911-12.
Statistics of British India, Parts I, II, III, and IV(*b*).

Agriculture.

Occupied and cultivated areas.

161. The total area occupied for cultivation, inclusive of current fallows, and for residential and industrial purposes was 17½ million acres, an increase of 1¼ per cent. on the figures of the previous year. It is probable however that much of the growth in the districts with the largest increases was due to incorrect estimates last year, and the total actual increase was probably not more than 130,000 acres. The area left fallow increased by about 6 per cent. to nearly 4¼ million acres, a rise which is attributed to long spells of drought in Upper Burma which prevented the planting out of paddy seedlings. The net total cropped area was 13¼ million acres, an increase of 30,000 acres, but the area which failed to mature rose by 356,400 acres; 403,000 acres were cropped more than once. Throughout most of Lower Burma the early rains were good, and as a result cultivation extended into waste land and lands under occupation formerly fallowed were again cropped. The floods in August and September and the paucity of the late rains however brought about an abnormal proportion of failures. In Upper Burma, if certain districts where last year's figures were unreliable be excluded, the most noticeable increases in the area under occupation occur in Myitkyina, Shwebo and Yamèthin. Immigration into the Namyin Valley, traversed by the Sagaing-Myitkyina railway accounts for the rise in Myitkyina. In Shwebo the increase fell half inside and half outside the canal area and may be regarded as normal. That in Yamèthin was due to immigration from other districts of the dry zone and to the high price of sesamum which induced cultivators to break new ground. In Myitkyina alone however of these three districts was there any considerable increase in the cropped area and Shwebo actually shows a decline.

The area under rice fell by 125,858 acres. There were increases in most Lower Burma districts, Prome, Bassein and Kyaukpyu heading the list, and large extensions in Upper Burma in Thayetmyo, Minbu and Magwe, but these were more than counterbalanced by the decline in Shwebo and other districts of the dry zone.

Maize rose by 36,000 acres, especially in districts along the Irrawaddy where it was planted after the destruction of the first crop of pulses, which in return fell by 50,000 acres. The favourable early and scanty middle rains led to an expansion of over 132,000 acres under early and late sesamum. The area under groundnut rose to over 142,000 acres mostly in Myingyan and Magwe and as a result of the high prices in 1910-11 the area under cotton increased largely in Meiktila, Thayetmyo and Myingyan. The provincial area under this crop was over 190,000 acres, an increase of 20,000 acres on the previous year. In rubber there was an expansion of 12,600 acres, Mergui, Hanthawaddy and Tavoy being the districts mainly responsible. Part of this increase, at any rate in Mergui, is due to revision of estimates of area.

Area irrigated.

162. The total gross area irrigated during the year from all sources was 986,000 acres or about 68 per cent. of the commanded area. Of this total 30,000 acres, two-thirds of which falls in the Kyauksè District, were twice cropped. As compared with 1910-11 in which the total irrigated area fell 58,000 acres there was a further decline of 43,000 acres. But the figures for the Pakôkku District which this year shows a reduction of 30,000 acres cannot be regarded as reliable in former years. Of the crops grown on irrigated land rice represents 95 per cent.

Government canals irrigated 420,000 acres, an increase of 11 per cent. on the previous year. The opening of the Môn canals in the Minbu District accounts for an additional 21,000 acres and both in Kyauksè and Shwebo about 8,000 acres more were irrigated. The area irrigated from tanks maintained by Government fell to 61,000 acres, almost the whole of this decrease being contributed by the Meiktila District. Private canals irrigated a larger area in the Magwe and Lower Chindwin Districts, but less in Meiktila. The area irrigated from private tanks also contracted.

The Agricultural Department: General.

163. The outstanding feature of the year was the first Agricultural and Co-operative Conference held in Mandalay in July 1911. His Honour the Lieutenant-Governor presided and the Conference was attended by over 300 persons, including representatives of the Burma Chamber of Commerce, numerous officials and a large number of delegates from Co-operative Credit Societies. A great stimulus has thereby been given to the work of the Agricultural Department.

The superior and subordinate scientific staff of the Department remained unchanged throughout the year. The scheme for the establishment of a staff of district vernacular agriculturists was sanctioned during the year and six men selected from settlement parties entered upon a course of training at the Mandalay Farm. A student was also posted for a two-years' course of training in plant breeding and selection to the Poona Agricultural College with a view to providing the Deputy Director, Southern Circle, with assistance in these branches. An eight-months' course for English-speaking Burmans was held at the Mandalay Farm to which eleven private students were admitted, and fourteen private students have been allowed to attend the course of training for district vernacular agriculturists. A non-recurring grant of Rs. 5,000 was given by the Local Government for the equipment of the school gardens at Nyaunglebin and Shwegyin organised by the American Baptist Karen Mission.

Agricultural experiment and research.

164. The work at the Mandalay experimental station has been largely a continuance of that done in former years, the chief extension being in seed selection and distribution. The experiments with exotic cottons at this station have ended in complete failure. Cambodia cotton from Madras, however, showed signs of doing well. The Hmawbi station was devoted to experiments with paddy only and to seed selection and distribution. The receipt of a non-recurring grant for equipment during the year will greatly facilitate the development of the work at this station. Experiments in sesamum and Cambodia cotton in the Yamèthin District, on the fertilisation of *taungya* soils in the Maymyo Subdivision and on wheat in the Katha District were also begun.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

The departmental report foreshadows the abolition of the so-called experimental gardens at Sinlumkaba in the Bhamo District, at Myitkyina and in the Chin Hills, except in so far as they can be made useful for seed production and distribution. The Myitkyina garden was reorganised during the year as a potato seed production station. The garden at Taunggyi in the Southern Shan States like the others has hitherto been devoted mainly to the production of European fruits for which there is no great demand, and it is now suggested that with the advent of the Southern Shan States Railway its activities might be more usefully directed to the production and distribution of reliable seed for the wheat industry of the States.

The moisture resisting Moulmein paddy originally introduced by the Local Government into the Akyab District showed a healthy expansion; 3,988 acres were planted and about 7,500 baskets were left for seed. Some rice milling firms are also importing seed for distribution. The supply of wheat in the Chin Hills was greatly in excess of the demand and the Superintendent of the Hills was asked by the Police Department, the only purchasers, to stop the cultivation for a year. It is feared that it may be difficult to get the supply up to requirements again. Experiments in the cultivation of wheat in the Bhamo District by the Military Police were temporarily abandoned. That wheat sufficient to ration the force would have been grown is certain and since the close of the year permission has been given for the resumption of the experiments under Military Police agency.

The Agricultural Chemist carried out 175 analyses during the year, a chemical examination of paddy mill products was completed, and an elaborate scheme of experiments was devised to determine the effects of different soils upon the chemical composition and market value of some paddy varieties. In Botany the survey of the peas and beans of the Province and also that of the wheats were completed. A survey of jowars and also work on sesamum and maize was also started. A series of important entomological experiments were conducted during the year, and under mycology the paddy blight known as *gwabo* and under other names received attention. This is considered by far the most serious blight in the Province and a visit of the Imperial Mycologist may be necessary to investigate and advise on it.

Ten cultivators' leaflets, two bulletins and three miscellaneous publications were issued during the year.

Veterinary Department: Staff and Veterinary Schools.

165. The full staff of Superintendents of the Veterinary Department is three but for most of the year the services of two Superintendents only were available. The only change in the subordinate staff was the appointment of a laboratory assistant for the Insein School. This school had 38 pupils on its rolls at the end of the year as against 24 in 1910-11. The number of cases brought for treatment to the dispensary attached to the school for demonstration purposes increases steadily and the daily attendance of cases averaged 15·12. The work in the laboratory also increased and included the examination of 2,000 slides sent in from the districts. Financial provision has been made for the better equipment of the school, which has long been a desideratum. The school at Taunggyi in the Shan States had nine pupils, four of whom were maintained by Shan chiefs with a guarantee of employment when efficient. Three of the four pupils who completed their 18 months' course passed the prescribed examination.

Cattle disease.

166. Deaths of cattle from contagious diseases fell from 39,164 to 34,215 in the year of report. Lower Burma returned 12,148 deaths and Upper Burma 22,067. There were considerable decreases under both rinderpest and foot-and-mouth disease but anthrax and allied complaints showed a slight rise. Under rinderpest the Irrawaddy Division had a recorded mortality of a little over 2,000, mainly in the Bassein, Henzada and Ma-ubin Districts. In no other division of Lower Burma did the deaths from rinderpest exceed 1,500. Akyab and Mergui, particularly the latter with 2,701 deaths, suffered from anthrax and hæmorrhagic septicæmia. No serious losses from foot-and-mouth disease were reported, Bassein with 628 deaths recording by far the highest mortality.

In the Upper Burma Divisions registration of cattle mortality is confined to Thayetmyo, and a rough estimate only is available for other districts. Pakôkku, Thayetmyo and Shwebo suffered most from contagious diseases, principally rinderpest which carried off 6,707, 3,020 and 2,237 cattle in these districts respectively. Pakôkku also heads the list in the deaths from anthrax and foot-and-mouth disease, the figures being 323 and 687 respectively, for the two diseases. In no other district was there an outbreak of importance. Both in the Northern and Southern Shan States the year was free from serious and widespread epidemic. Local outbreaks were sometimes severe and in the Northern Shan States occurred in every State. They were however successfully localized.

Preventive inoculation was carried out in 54 villages in 12 districts, 8,946 animals being injected. Eighty-five are reported to have succumbed to rinderpest. Inoculation was also carried out for the Rangoon Municipality and for the Supply and Transport Department. For the first time certain Veterinary Inspectors and Veterinary Assistants were permitted to carry out inoculation without superior supervision, and so far the result of the innovation has been satisfactory. Sanction was accorded to a scheme for a survey of contagious cattle diseases and it is hoped to make a start in the coming year.

The segregation rules are now well understood by the people and, speaking generally, were applied without trouble, the villagers for the most part realising that outbreaks can be dealt with successfully by means of prompt and careful segregation. One source of trouble is the traffic in infected green hides but without legislation it is not likely that this can be stopped. In two or three districts segregation camps have been built and the departmental report recommends the extension of this practice. The growth of co-operative cattle insurance societies in Upper Burma may lead to a strengthening of public opinion in favour of segregation and other preventive measures.

167. The number of bulls and bullocks in the Province rose to 2,032,081, an increase of 68,837 on the previous year; cows also increased by nearly 30,000, but both male and female buffaloes showed a diminution. For purposes of cultivation the buffalo is being ousted by bulls and bullocks which are less liable to mortality from cattle disease. The number of sheep is unimportant, and even shows a slight decrease on the previous year. Goats have increased by 9,000, and horses and ponies by over 4,000. Ploughs are returned at 542,782 and carts at 618,699. Stock.

168. Advances under the Agriculturists' Loans Act amounted to Rs. 9·67 lakhs, making with the principal outstanding at the close of the year a total sum of Rs. 19·15 lakhs. Rupees 8·55 lakhs were collected during the year of report on behalf of principal and interest. Suspensions rose by a lakh owing to the unfavourable season and totalled Rs. 1·85 lakhs. The principal overdue at the end of March 1912 was Rs. 1·32 lakhs but most of this was recovered by the close of the agricultural year at the end of June 1912. Loans are now made earlier in the year than used to be the case and they are reported to be growing in popularity. The purchase of cattle and seed grain are the chief uses to which they were put. Little advantage was taken of the Land Improvement Loans Act and only Rs. 8,275 were advanced during the year. Agricultural loans.

The profit to the Local Government after repayment of principal and interest at 3½ per cent. to the Government of India amounted to Rs. 36,851.

169. Protection by embankments from inundation of lands suitable for cultivation has been undertaken on a large scale by the Irrigation Branch of the Public Works Department along the course of the Irrawaddy River in Lower Burma and also on a smaller scale along the banks of the Sittang River and in the Tharrawaddy District. These embankments on the west bank of the Irrawaddy consist of one running from the north of the Myanaung Subdivision of the Henzada District to the entrance to the Ngawun or Bassein River and a second surrounding the north of the Henzada Island from the Thabaung Township on the south-west to Pantanaw on the south-east. A short embankment on the east bank of the Irrawaddy Protection from floods.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

runs from Sagagyi to Sangin. Further south the northern portions of the Ma-ubin and Thôngwa Islands have been similarly embanked. The three embankments along the Sittang River are known as the Sittang, the Zwebat-Moyingyi and the Pegu embankments. For the Irrawaddy embankments proper, in which the Myanaung, the Henzada Island, the Sagagyi-Sangin and the Thôngwa Island embankments are included, both capital and revenue accounts are kept. The remaining embankments have revenue accounts only.

The total capital outlay on the embankments for which capital accounts are kept was by the end of the year of report Rs. 39·37 lakhs, and the revenue receipts were Rs. 13·85 lakhs. The net revenue after deducting working expenses totalling Rs. 2·70 lakhs was Rs. 11·15 lakhs or a percentage of 28·33 on the capital outlay. The net revenue derived from embankments possessing only revenue accounts was Rs. 4·64 lakhs. The total area protected by embankments maintained by Government was according to the departmental report 664,572 acres, an increase of 12,722 acres on the figures for the previous year.

The work of raising the embankments in the Irrawaddy section begun in former years was continued during the year of report and repairs were also executed on the Sittang embankments and on the Bilin chaung embankment in the Tharrawaddy District.

The works at Henzada mentioned in the General Administration Report of Burma for 1910-11 as undertaken to protect that town from erosion by the Irrawaddy cost over Rs. 26,000 during the year, but as they unfortunately proved quite incapable of resisting the set of the river, they have had to be abandoned.

Weather and Crops.

Character of the seasons.

170. The agricultural year 1911-12 was, like its predecessor, one of poor harvests. In Lower Burma the rice crop was destroyed by floods over extensive areas in the Pegu, Irrawaddy and Tenasserim Divisions in August and September, and outside flooded areas the full development of the crop was subsequently impaired by the failure of the late rains, which also prevented replanting in many of the flooded areas. Later still a cyclonic storm in January when the bulk of the crop was drying on the threshing floor did considerable damage. In Upper Burma conditions were also unfavourable. The early rains were good but were followed by prolonged spells of drought in the dry zone during July, August and September, while, as in Lower Burma, the later rains both inside and outside the dry zone proved insufficient in most districts. Late rises on the Chindwin and Irrawaddy Rivers did much damage to the island crops of the Sagaing and Mandalay Districts.

Outturns and prices.

171. The rice crop of the year fell below the normal in all the chief rice-producing districts of Lower Burma except Henzada. In the final forecast the provincial estimate was fixed at 87 per cent. of a normal crop and the exportable surplus was calculated to be 2,425,000 tons of cargo rice. The actual surplus exported in 1911 was 2,403,525 tons as against an estimated surplus of 2,580,000 tons. The deficiency would have been larger but for unexpectedly large exports from Upper Burma, where the extension of cultivation and the opening of new irrigation works is adding to the surplus available for export. An unprecedented rise in the price of unhusked rice began about July 1911. A brisk demand from China, Japan and Java, the prohibition of export from Saigon and a poor harvest in Siam as well as in Burma all combined to give an impetus to speculation which raised the price at Rangoon from Rs. 135 at the end of June to Rs. 204 per 100 baskets at the beginning of October. Thereafter prices fell to Rs. 133 in December with the advent of the new crop, which is 30 per cent. higher than in the corresponding month of 1910. In January the price for undamaged grain rose to Rs. 150 round which point it oscillated till the middle of May when it again rose rapidly and stood at Rs. 200 at the close of the year.

Rangoon prices govern the market throughout the Province, and all districts benefited by the appreciation. Some apprehension was expressed lest the

high prices combined with a short crop should lead to overselling and consequent retention of insufficient stocks for home consumption. District reports however did not support this view, but the situation was carefully watched as it is difficult to obtain accurate estimates of stocks, particularly in areas away from the railway. The final cotton forecast for the year was 34,000 bales, but the figures of actual exports show that the yield was under-estimated. The value fell somewhat owing to the plentiful supplies. The price per maund of 82⅔ lbs. was Rs. 7-12-0 at Thayetmyo as against Rs. 11-4-0 in 1910 and Rs. 8-14-0 normal. The outturn of groundnut was estimated at 48,500 tons and prices declined in Myingyan, Magwe and Pakôkku. Sesamum varied considerably in outturn from district to district, and in most districts higher prices were realised. Tobacco yielded less than usual both in the Upper and Lower Province. In Upper Burma the high price of rice caused a rise in the value of millet, maize and other food grains. In the chief wheat-producing tracts the price of wheat was higher and rises in the price of red and white beans were general.

Co-operation.

Co-operative Rural Societies.

172. The year 1911-12 saw a considerable advance in the development of co-operation in the Province. The Agricultural and Co-operative Conference held at Mandalay in July 1911 has already been referred to, and its results have been as fruitful on the co-operative side as on that of agriculture. Rural credit societies numbered 691 with 16,821 members as against 444 with 11,185 members at the end of 1910-11. With the exception of the societies in the Pakôkku District which are supplied with funds by the Pakôkku Central Bank, these all dealt with the Upper Burma Central Bank at Mandalay. As heretofore all the rural societies were formed with unlimited liability and the great majority adopted the system of Rs. 100 shares paid in ten annual instalments of Rs. 10 each. The aggregate profit realised on the year's working was Rs. 78,000; share capital reached Rs. 2·78 lakhs, and loans from other societies, chiefly from the Central Banks totalled Rs. 11·76 lakhs. The corresponding figures for the previous year were Rs. 40,000, Rs. 1·67 lakhs, and Rs. 6·73 lakhs respectively. Reserve funds totalled Rs. 74,000 as against Rs. 36,000 in 1910-11. Loans from non-members and deposits by members decreased from Rs. 3·08 lakhs and Rs. 34,800 to Rs. 25,000 and Rs. 34,300 respectively. This was due to the withdrawal of the Bank of Rangoon, Limited, from all its business with Co-operative Credit Societies during the year of report, and also to the repayment of ancient debts due by members which were commuted into deposits with the societies.

The development of agricultural co-operation was mainly confined to the Upper Province, the number of new societies in Lower Burma being 19 only. Two new districts Insein and Prome however appeared in the list for the first time and with the appointment of an extra Junior Assistant Registrar for work in the Pegu and Tenasserim Divisions an increased rate of expansion in that part of the Province may be expected in the future. Sixty-four rural societies were formed in the Minbu District where a special staff of one officer with Registrar's powers and two assistants was appointed to distribute land under the recently completed Môn Canal and to finance the new settlers with agricultural advances through the medium of Co-operative Credit Societies. Rupees 1·72 lakhs of Government money were so advanced during the year of report. These advances will gradually be withdrawn as cultivation settles down and the financing of the Societies will be undertaken by the new Central Bank established at Sagu since the close of the year.

Unions and Central Banks.

173. The Unions of Co-operative Credit Societies advanced from 24 with 293 societies to 43 with 486 affiliated societies. They were to be found in eleven districts, Shwebo heading the list with eleven unions. The unions gave great assistance in the inspection and control of their affiliated societies and some of them had cash credits with the Central Bank within which they were permitted to operate. The appointment of five inspectors paid from Union funds either was or

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

was about to be made in the Shwebo, Kyauksè, Mandalay and Pakôkku Districts. The only addition to the Central Banks during the year was that at Pegu. This confined itself to collecting local deposits, which together with its share capital, were invested in the Upper Burma Bank at Mandalay.

The Upper Burma Central Bank was practically the Provincial Central Bank. It commenced to transact business with the Bank of Bengal, Rangoon, during the year as well as with the National Bank of India at Mandalay. Its paid up share capital was on June 30th, 1912, Rs. 59,150. It held Rs. 11·21 lakhs of deposits and Rs. 43,000 of advances from the banks. Its loans to societies totalled Rs. 12·19 lakhs and it held Rs. 43,000 invested in Government paper. Its profit for the year was, after paying the remuneration of the Manager, Rs. 12,000, and a dividend of 9 per cent. was paid. The reserve fund after the allocation of the profits on the year's working stood at Rs. 6,400. The members of the bank comprised 384 individual members and 548 societies.

Other Societies.

174. Urban Credit Societies increased from 27 to 37, but their progress hardly justified expectations. Except in one or two cases they failed to promote rural co-operation in their neighbourhood and speaking generally they did not succeed in developing a business in small loans for the petty artisans and shopkeepers of their towns, which is the main duty of a popular bank.

Societies for the sale of grain, of which seven were formed during the year, were a new departure, and though the results were not uniformly satisfactory, considerable experience was gained. It is clear that by such co-operative sale societies can eliminate the middleman's profit and also provide a machinery for supplying thoroughly clean graded grain to the Rangoon mills, if the millers are prepared to pay higher prices in return for the trouble and expense involved.

Cattle insurance societies increased from 6 to 23. These are found in four districts. The number of cattle insured is 933, valued at Rs. 35,000. The total funds of the societies were Rs. 975. In only one case was an indemnity paid during the year. Rinderpest was excluded from insurance but as funds increase it is hoped to include this also.

The new Co-operative Societies Act (II of 1912) came into force during the year.

Horticulture.

Horticultural Societies.

175. There are two Horticultural Societies in the Province. Of these the more important is the Agri-Horticultural Society of Burma with its headquarters in Rangoon which increased its membership from 246 to 256 during the year. The year was a more prosperous one than 1910 and the Society's income increased. The re-valuation of the Society's property however necessitated a provision of Rs. 8,754 for depreciation and the revenue account shows in consequence a deficit of over Rs. 6,600. The annual exhibition of flowers, plants, industries and poultry was again a success and the exhibits exceeded those of former years in number, variety and quality.

The Tenasserim Agri-Horticultural Society increased its membership by five during the year and had a credit balance of Rs. 966 at its close. Prizes for school gardens were offered and four schools in Moulmein entered for the competition. The annual flower and vegetable show suffered from a lack of exhibitors.

Forests.

Forest reserves, survey and settlement, and working-plans.

176. The total area of forest reserves in the Province rose during the year from 26,077 to 26,135 square miles; there was an actual increase of a considerably larger area but recomputation after survey resulted in large deductions from former estimates in the Pegu and Tenasserim Circles. The total area of reserved and unclassed forests was 137,353 square miles. The settlement of 267·3 square miles was finally completed during the year at a total cost of Rs. 17,900. In the

previous year 366 square miles were finally settled at a cost of Rs. 9,667. The expenditure on areas undergoing settlement during 1911-12, was Rs. 16,801. The total length of boundaries was 23,734 miles, an increase of 398 miles over the revised figures for the previous year. Artificial demarcation was carried out along boundaries measuring 556 miles during the year and the total length of boundaries so demarcated had reached 19,100 miles at its close. But little progress was made with forest survey operations and the reports indicate the need of the re-establishment of a special forest survey. Two hundred and sixty-two square miles of reserved forest and 149 square miles of boundaries were included in the topographical work of the Survey of India. The area of reserved forests remaining to be taken under survey amounted to 8,293 square miles.

Working-plans were sanctioned for 231 square miles during the year. At its commencement the compilation of working-plans was in progress for 2,176 square miles and a further area of 776 square miles was taken in hand before its close. Out of the total area of reserved and unclassed forests working-plans have still to be taken in hand for 126,745 square miles. In the West Salween Division a working-plan to cover 162 square miles for the exploitation of *pyinkado*, *pyinma* and other marketable species other than teak is in course of preparation. Sanction was given to the working-plans for 188 square miles in the Upper Chindwin Division and for 43 square miles in the Katha Division. In the Bhamo Division the working-plan for 106 square miles was submitted and the prescriptions taken in hand in anticipation of sanction.

Preservation of the forests.

177. Offences against Forest Rules increased from 3,831 to 4,228 during the year largely owing to greater vigilance on the part of the staff of the Department. Unauthorised fellings again showed advancing figures particularly in the Southern and Pegu Circles. The exhaustion of the unclassed forests in the Prome, Zigôn and Tharrawaddy Divisions of the latter circle is said to be leading to an annual increase in the theft of forest produce from the Plains Reserves.

Fire protection was less successful than in the previous year owing to the lack of winter rain and an unusually prolonged hot weather in many divisions. Protection was attempted over 4,319,815 acres and was successfully carried out over 4,043,025 acres, at a total cost of Rs. 2·43 lakhs. The failure of the rains in the dry zone of Upper Burma led to the throwing open to free grazing of all the reserves in the Myingyan District and two reserves in the Meiktila District. Illicit grazing was reported to be common in many divisions, and in the dry zone the growing popularity of goat breeding was said to be rendering the protection of the reserves more difficult than in the past.

Improvement of the forests.

178. The expenditure on new buildings during the year amounted to Rs. 90,000, of which Rs. 47,000 was spent on rest-houses and the remainder mainly on head-quarter houses and houses for subordinate establishments. On communications, mainly cart-roads and bridle paths new work to the value of Rs. 96,000 was completed. The total expenditure on new works fell by approximately Rs. 21,000 below the figures for the previous year. Repairs to buildings and communications cost Rs. 53,000 and Rs. 27,000 respectively, the aggregate total being approximately the same as in 1910-11. The area of plantations increased by over 500 acres during the year, chiefly in teak plantation on hillside clearings. Nearly a lakh of rupees was expended on improvement fellings, the area dealt with aggregating 75,000 acres.

Exploitation of teak and other woods.

179. The number of teak trees girdled during the year was 140,522, an increase of twenty-five per cent. on the figures for 1910-11. Over two million cubic feet of teak, equal to over 43,000 tons, was extracted by Government agency. This method of working is almost entirely confined to the Pegu Division which extracted three-quarters of the total. Teak extraction by purchasers aggregated nearly ten and a half million cubic feet equivalent to 210,000 tons, a reduction of 20 per cent. on the previous year's figures which may be accounted for by the absence of the special inducements to rapid extraction mentioned in the General Administration Report of Burma for 1910-11. The extraction of

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

unreserved woods in logs by purchasers showed a small increase. There was a considerable increase in log extraction by free grantees both in the case of teak and unreserved woods. Fuel was extracted in smaller quantities, the total outturn being over two and a half million cubic feet below that of the previous year.

Finance.

180. The financial results are noticed in Chapter V in the section entitled Revenue and Finance other than Imperial.

Mines and Quarries.

The Indian Mines Act.

181. Of the mines dealt with in the General Administration Report of Burma for 1910-11 that of the Mount Pima Mining Company was no longer worked, the Company having gone into liquidation, and though work proceeded intermittently at the Sagadaung galena mines in the Mandalay District no extraction of ore took place. There was a considerable improvement in the health of the employés at the tin mines of the Burma Development Syndicate at Maliwun, which was worked throughout the year. The Burma Ruby Mines Company, Limited, at Mogôk, in the Ruby Mines District continued their operations on the same lines as in former years. New mines are represented by the Pagaye, Kanbauktaung and Egani mines in Tavoy District, all of which are engaged in the extraction of wolfram, and a steatite mine at Sanbawgyi in the Kyaukpyu District. There was one fatal accident at the Pagaye mines during the year. Women and children are said to have been employed in the alluvial workings in Tavoy but were not entered in the returns, and a very few women were also employed at the Sagadaung mine in the Mandalay District.

New concessions.

182. A change in the prescribed forms for district reports on applications for prospecting or exploring licenses or mining leases and also in the dates of their submission makes detailed comparison with the figures for 1910-11 impossible. There were 796 cases pending at the end of March 1911. By the end of December 1,013 cases had been disposed of, as against 821 in the full twelve months of 1910-11. The cases still outstanding then numbered 633. Of these all but 150 referred to districts in the eastern and southern portions of the Tenasserim Division, the great majority having reference to minerals other than oil. Tavoy is the chief centre of the prospecting fever and though this is not always definitely stated the objective is as a rule wolfram ore. Applications relating to other districts of the Province are usually on account of supposed petroleum bearing areas, but there are a few cases of other minerals. Approximately the same division applies to the cases actually disposed of. The first quarter of 1912 saw no diminution of the prospecting activity and 402 cases were then disposed of, a number exceeding that dealt with in any quarter of 1911.

Petroleum.

183. The petroleum yield of the Province recovered to some extent from the fall experienced in 1910 and aggregated 222 million gallons, as against 211 millions in the previous year and 230 million gallons in 1909. The output in the Magwe District where the Yenangyaung wells are situated continued to decline and fell by 8½ million to 166 million gallons. The Myingyan District, where are the Singu wells, improved by 19 million gallons, and the output of the Minbu oil-field rose from 18,000 to 632,000 gallons. The Pakôkku District output declined to 4½ million gallons, in spite of an increase from the main oil-field at Yenangyat. Exploitation continued vigorously, both in the Minbu oil-field and in the lower sands of that at Yenangyaung, but it is still too early to predict an assured return. Prospecting in the Thayetmyo District did not result in any find of value, and a new field near Kyaukkwet in the Pakôkku District recently taken up by the Indo-Burma Petroleum Company was abandoned as unproductive. Prospecting operations in the Upper Chindwin were initiated by this Company during the year.

Gold.

184. The only commercial venture for the extraction of gold was that of the Burma Gold Dredging Company in the Myitkyina District of Upper Burma, where it was engaged in dredging operations for gold and platinum in the bed of the Irrawaddy River. The quantity of gold won during the year was 6,390 ozs. valued at Rs. 3·64 lakhs, an increase of 418 ozs. over the figures of the previous year. The lease of the Shweli Gold Dredging and Mining Syndicate was cancelled during the year. Gold washing by native methods was carried on intermittently in several districts. The operations were however quite unimportant and only two districts, Pakôkku and Katha, returned figures for the year of report, the amount being 22 ozs. only.

Rubies.

185. The Burma Ruby Mines Company in the district of that name continued to work throughout the year. Rubies were extracted to the value of Rs. 9·65 lakhs as compared with Rs. 8·37 lakhs in the previous year. Sapphires and spinels to the value of Rs. 29,000 and Rs. 10,500 were also found, the value of the total output of the Company expanding by Rs. 1·43 lakhs. The ruby market in Europe continued bad, but the Indian market was fair. The Director's report for the year ending the 29th February 1912 shows a profit for the twelve months of £7,635-16-4. The percentage payable to the Government of India was £2,378-18-2, leaving a net profit of £5,256-18-2. On the understanding that expenditure estimated at £20,000 will be incurred on the development of new areas the existing debt has been remitted by the Secretary of State, until such time as the net profits exceed 10 per cent. on the present paid-up capital. Royalties collected from native miners by the Company and paid to Government in return for a commission of 10 per cent. amounted to Rs. 1,81,040 as against Rs. 1,47,540 in the previous year.

Other minerals.

186. The Taungbalaung Copper Mines in the Myitkyina District after extracting 159 tons valued at Rs. 7,400 as compared with 290 tons worth Rs. 8,693 in the previous year ceased operations on the 1st January 1912. The Tawmaw Mines in the same district produced 2,062 cwts. of jade valued at Rs. 1·72 lakhs, but the trade was disorganised by the outbreak of the revolution in China and consequent failure of the demand. Jade to the value of Rs. 15,000 was also reported to have been won in the Malin tract of the Katha District. Owing to the absence of purchasers there were no sales and the stones remained with the diggers. Only 13 cwts. of amber as against 63 cwts. in 1910 were imported from the Hukong valley in unadministered territory. The production of galena in the Toungoo District and the Southern Shan States fell from 680 tons valued at Rs. 22,008 to 189 tons valued at Rs. 10,777. Tin ore and tin were produced in the Mergui District to the amount of 2,624 cwts. valued at Rs. 2·97 lakhs. The production of lead slag in the Northern Shan States increased from 29,533 to 31,954 tons valued at Rs. 10·24 lakhs, and that of silver lead ore from 975 tons to 3,218 tons valued at Rs. 72,165, in both cases the result of the increased activity of the Burma Mines Company at Bawdwin. The total production of wolfram in the Tavoy and Mergui Districts more than doubled during the year of report, and aggregated 16,963 cwts. valued at Rs. 8·69 lakhs. Iron ore weighing 20,995 tons and valued at Rs. 7,659 was extracted in the Mandalay District by the Burma Mines Company as against 7,480 tons valued at Rs. 2,571.

Quarry stones and clay.

187. Clay, laterite, limestone, sandstone and gravel were extracted as usual in large quantities. The supply of these materials is practically inexhaustible and the output depends mainly on the requirements of the Public Works Department, the Burma Railways, and the Municipalities for building and road-making purposes. Granite was extracted in eight districts, the most important quarries being those of the Thatôn District and that on the island of Kalagauk in the Amherst District belonging to the Commissioners of the Port of Rangoon.

Revenue from mines and quarries.

188. The revenue realized from fees, rents and royalties on petroleum, rubies, jade and amber amounted to Rs. 28·69 lakhs, a fall of over half a lakh from the record figures of the previous year. The revenue from petroleum declined in the

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

Magwe District by Rs. 2·21 lakhs, which was partly compensated for by an expansion of Rs. 2·03 lakhs elsewhere. Receipts from the sale of the right to collect royalty on jade in the Myitkyina District decreased by over Rs. 44,000. Fees, rents and royalties on other minerals showed an increase of Rs. 1·17 lakhs, practically the whole of which was supplied by the Tenasserim Division. Tavoy contributed Rs. 65,647 and Mergui, Rs. 26,149 of the total increase, in the form of surface rents paid under prospecting licenses and royalties paid on metal extracted principally wolfram and tin. Increases in the Thatôn, Amherst, Upper Chindwin and Katha Districts are due to the growth in the number of prospecting licenses issued.

Manufactures.

Principal industries.

189. According to the statistics collected at the Census of 1911 the number of actual workers in the industries of the Province was 469,743 persons, of whom 249,433 were males and 220,310 were females. Dependents numbered 336,688. The percentage of the persons engaged in industries and their dependents to the total population was 6·6 only. A special industrial census of large industries was undertaken. Exclusive of plantations, mines, petroleum wells and quarries of hard rock two hundred and eighty-eight industrial concerns employing 58,723 males and 2,776 females were enumerated. Food industries head the list with 30,059 employés of whom 29,872 were at work in the 152 rice mills of the Province. Chemical industries follow with 11,150 workers, nearly the whole of whom were engaged in the various operations of petroleum refining. The conversion of timber in 82 saw mills employed 9,833 persons and transport construction 4,907 persons, the last named comprising the subsidiary workshops and dockyards of the Government and the railway and steamer companies. The remainder of the industries are of minor importance.

Outside of these large industries the occupations of the people are for the most part uninfluenced by the introduction either of European capital or Western industrial methods and continue to be conducted on traditional lines as home or cottage industries. Cotton spinning, sizing and weaving is still the most important of these home industries employing 5,219 males and 91,766 females with 35,752 dependents. The number of persons so employed at the Census of 1901 was 192,618 and the drop of 50 per cent. in 10 years is an eloquent indication of the extent to which the imports of factory-made goods have ousted the indigenous product. Sawyers, carpenters, turners, joiners and the like number over 56,000 persons and rice-pounders and huskers and flour-grinders nearly 42,000, exclusive of the employés in rice and saw mills already enumerated. Tailors and dress-makers, basket-makers, workers in precious stones and metals, persons engaged in washing, cleaning and dying, workers in iron, silk spinners and weavers, and toddy drawers are the only other classes of workers whose industry employs more than 10,000 workmen. Pottery which employed 11,000 persons in 1901 showed no more than 9,000 workers. Increases where they occur are for the most part in occupations in which the stress of over-sea competition has not yet been felt. These indigenous industries are, however, as a rule but poorly remunerated and the high prices ruling for agricultural produce during recent years have doubtless induced a certain number of workers, particularly among the younger generation, to abandon their hereditary occupation in favour of agriculture.

Factories.

190. The Indian Factories Act, 1881, as in past years, included within its scope only 14 districts, all in Lower Burma. The Indian Factories Act, 1911, which will apply to the whole Province did not come into force until after the close of the year. The number of factories increased from 301 to 307. Two flour mills in Rangoon and the Port Commissioners' stone works at Kalagauk in the Amherst District were the only new kinds of factory, and there was an increase of 4 in the saw mills of the Toungoo District, the total number in the Province being now 88. Rice mills remained at last year's figure 165. The average number of daily

operatives in all factories fell from 45,624 to 43,784 composed of 41,660 male and 1,484 female adults with 640 children. The increase in the number of children employed is entirely confined to Rangoon, where the figures rose from 134 in 1910 to 408 in the year of report. The work assigned to them was however reported to be light and suitable. Elsewhere there was a decrease in the employment of children. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

Twenty-seven factories did not work during the year. No striking advance in the sanitary arrangements of factories was reported, but managers are said to have complied readily with suggestions for improvement and the general health of the operatives was good.

The rate of wages for unskilled labour remained at about Rs. 15 a month, and the fact that no difficulty appears to be found in obtaining labour indicates that the operatives are sufficiently paid and generally well treated. Accidents increased from 335 to 385, but the increase was entirely in minor accidents, fatal accidents having fallen from 15 to 9 and serious accidents from 131 to 129. Most of the accidents were unconnected with machinery and many were due to carelessness.

Trade.

191. The total value of the seaborne trade of the Province, both foreign and coasting, advanced by Rs. 642·16 lakhs or by 11·08 per cent. as compared with the figures for 1910-11. The value exceeded the record figures of 1907-08 by Rs. 80 lakhs, and the value of the trade omitting Government treasure transactions was Rs. 205 lakhs better. There was a remarkable increase in the imports of sovereigns 1,420,000 being received from India on Government account and 264,200 by Banks from foreign countries, whereas the total number received in 1910-11 was 219,000 only. Sovereigns do not appear to have entered much into circulation but the increased circulation of currency notes has to a great extent curtailed the movements of rupees between India and Burma. The maximum circulation of currency notes was Rs. 684 lakhs on March 1st 1912 as against Rs. 483 lakhs and Rs. 433 lakhs in the two previous years also in the same month. Maritime trade: total value and revenue.

The total value of the private foreign trade was Rs. 3,766 lakhs, an increase of 17·71 per cent. over the figures for 1910-11. Imports improved by Rs. 131 lakhs or 11·98 per cent. in sympathy with the high prices obtained for produce exported. More cotton and woollen piece goods, apparel, provisions, cigarettes and gold bullion were imported but metals and their manufactures, machinery and mill work and building materials generally fell off. The value of exports was Rs. 2,541 lakhs, a growth of 20·68 per cent. over the previous year, but although more rice was shipped the increase was mainly due to the greatly enhanced price of paddy. Considerable improvement took place in the exports of rice bran, raw cotton, hides and skins, tobacco, rubber and wolfram ore. The value of the private coasting trade declined by 11·75 per cent. Imports rose by 3·26 per cent. to Rs. 1,033 lakhs but exports were only Rs. 1,038 lakhs, a decline of 22·90 per cent. as compared with the previous year. This was entirely due to the smaller demand from India for rice. The departmental report points out that rice and paddy represented 63·75 per cent. of the combined value of the foreign and coasting exports of merchandise, and that an important factor in the strong position held by Burma in the rice trade of the world is the marvellous regularity of the volume of her exports. During the past 5 years the fluctuation in exports has been only 325,000 tons on an average total export of 2,363,999 tons.

Rangoon is by far the most important port in the Province and accounted for 82·31 per cent. of the total trade in private merchandise as against 82·70 in 1910-11. The rice export trade of Bassein improved and it was reported that paddy was diverted there from districts which have hitherto supplied Rangoon.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

The balance of the value of exports over imports, excluding Government transactions, was Rs. 1,322 lakhs, a decrease of Rs. 36 lakhs as compared with 1910-11.

The net customs duty realised, inclusive of the duty on imported salt, was Rs. 184 lakhs, an increase of Rs. 4 lakhs or 2·33 per cent. over that for the previous year. The increase would have been higher but for heavy rains in January which retarded the movement of the rice crop from Rangoon. The import duty on salt showed an increase of Rs. 68,000, and the reduction in the rate of duty on tobacco had the effect of greatly increasing consumption and raising the revenue. Cotton piece goods also largely contributed to the increased import duty realised.

Rangoon contributed Rs. 159·54 lakhs of the total revenue and also collected Rs. 17·89 lakhs on account of rice exported from subordinate ports. These latter contributed Rs. 27·26 lakhs of which Rs. 25·50 lakhs related to export duty. Bassein had the largest income of the subordinate ports its share being Rs. 13·05 lakhs. Akyab and Moulmein followed with Rs. 7·50 lakhs and Rs. 6·07 lakhs respectively. None of the other ports reached half a lakh.

Rangoon trade: total figures.

192. The aggregate foreign and coasting trade of Rangoon totalled Rs. 4,806 lakhs, exclusive of Government transactions as against Rs. 4,587 lakhs in 1910-11. Foreign imports rose from Rs. 1,066 lakhs to Rs. 1,199 lakhs, and foreign exports from Rs. 1,694 lakhs to Rs. 2,036 lakhs, a total increase in foreign trade of Rs. 475 lakhs. The coasting trade showed a rise of Rs. 33 lakhs in imports to Rs. 770 lakhs which was however more than counterbalanced by a drop of Rs. 256 lakhs in exports to Rs. 801 lakhs. The foreign private trade represented 67·32 per cent. of the aggregate value against 60·17 per cent. in the previous year. Out of the seven groups into which the trade of Rangoon is divided two only, animals living and metals and manufactures of metals, showed a decline in imports, and two only, oils and articles manufactured and partly manufactured, in the case of exports.

Rangoon trade: foreign imports.

193. The most important item of merchandise imported into Rangoon was manufactures of cotton. This rose by Rs. 57·73 lakhs during the year of report and was valued at Rs. 355·68 lakhs or 31·10 per cent. of the total imports of merchandise. Next but a long way behind came metals, provisions, silk and its manufactures, sugar, hardware and cutlery, apparel, machinery and mill work, manufactures of wool and liquors in the above order. None of these however exceeded 10 per cent. of the total imports of merchandise. The growth of the trade in cotton manufactures was confined to piece goods. Foreign imports of twist and yarn showed a slight increase but there was a drop of nearly two million pounds valued at Rs. 8 lakhs in the coasting trade. This decline is attributed to the decadence of the village weaving industry, and is coincident with the increased imports of piece goods. The foreign imports of piece goods were the highest on record reaching a value of Rs. 281 lakhs. Coloured, printed and dyed piece goods were most in demand and represented nearly 50 per cent. of the total quantity imported. It is satisfactory to note that the United Kingdom had the lion's share of this trade, providing 84 per cent. of the foreign imports in the case of twist and yarn and 85 per cent. in the case of piece goods, where Holland was second with 10 per cent. The coasting trade in cotton piece goods also passed all previous records, reaching Rs. 63 lakhs, coloured, printed and dyed piece goods again representing more than half of the total imports. In other cotton fabrics hosiery was the principal item and advanced by Rs 5 lakhs to Rs. 18 lakhs, of which Japan supplied Rs. 9·68 lakhs, and Germany Rs. 5·64 lakhs.

Metals have shown a steady decline for the past three years which is attributed to a lull in building operations and development work after the feverish haste of the last few years as well as to the sharp rise in prices in the home market in 1911.

Unwrought iron dropped in quantity by 55 per cent. but imports of pig iron from Bengal rose from 1,700 cwts. to 11,183 cwts. and on account of its lower price the Indian is replacing the foreign product. In wrought iron the smaller requirements of the oil industry reduced the value of pipes and tubes by 47 per cent.

though there was an increase in tinned plates for the kerosine oil trade. The chief importing countries were the United Kingdom and the United States. The imports from both declined to Rs 61·89 lakhs and Rs. 24·30 lakhs respectively.

Imports of provisions increased by Rs. 8¼ lakhs and there was a general improvement under the majority of items. The imports of biscuits were nearly equal to, and those of condensed milk were greater than, the combined imports of these articles at all other ports in India. Wet salted fish again declined but dry salted fish rose by over 2 lakhs as compared with the previous year. The United Kingdom enjoyed 39 per cent. of the trade in provisions followed by the Straits Settlements with 35 per cent. Imports of raw silk rose 45 per cent. to nearly Rs. 22½ lakhs. This was in excess of requirements and large stocks were in hand at the close of the year. Silk piece goods, of which Japan has the monopoly, increased by nearly 20 per cent. and the imports were the largest on record. The goods readily passed into consumption owing to the high prices obtained for paddy by the cultivators.

Refined sugar declined by 9·5 per cent. in quantity but rose 1·4 per cent. in value, owing to heavy stocks carried over from the previous year and the high prices ruling. Java continued to be the chief source of supply with 360,223 cwts. valued at nearly Rs. 40 lakhs, as against 383,084 cwts. valued at Rs. 37½ lakhs in 1910-11. A noticeable fall of nearly 20,000 cwts. took place in imports from Hongkong.

Under hardware and cutlery, enamelled ware, principally from Austria, was imported on an increasing scale and sewing machines rose from 6,820 to 7,238. Agricultural implements were under half a lakh in value and less than in either of the two previous years.

Apparel excluding hosiery rose by Rs. 5·59 lakhs to Rs. 45·80 lakhs, the highest figure on record. The largest item was haberdashery. Of the general total value the United Kingdom contributed 67 per cent. as against 66 per cent., Japan 14 per cent. and Austria-Hungary and Germany 5 per cent. each. Machinery and mill work declined from Rs. 43·51 lakhs to Rs. 39·48 lakhs. The United Kingdom contributed Rs. 21·29 lakhs and the United States Rs. 12·66 lakhs both below last year's figures. Germany rose by half a lakh to Rs. 4 lakhs. There was an improvement under steam engines other than locomotives and under electrical engines but other categories showed a reduction.

The import of woollen goods improved by Rs. 8½ lakhs, chiefly under the head of piece goods. Italian rugs were said to be in course of displacement by cheap cotton—fringed woollen blankets from the United Kingdom.

There was an increase of 39,028 gallons in the consumption of malt liquor. Imports of spirit rose very slightly, but clearances for consumption were less by 10,000 proof gallons than in the previous year. Brandy, gin and rum which are principally consumed in the liquor shops all contributed to the fall, whereas whisky, a more expensive liquor, showed a slight increase. Wines showed a further decline except in the case of port which rose slightly. Railway plant and rolling stock declined from Rs. 28 lakhs to Rs. 22 lakhs, owing to a fall of Rs. 8 lakhs in the imports of rails, fish plates, sleepers and keys. Imported salt rose by Rs. 4¼ lakhs, and drugs, medicines and narcotics by Rs. 8 lakhs. Both matches and chemicals declined owing to the competition of local factories. Under toys and requisites for games the increase in air guns and air rifles was very marked. Imports of China tea declined but the coasting trade in Indian tea advanced. One thousand eight hundred and nineteen bicycles, 61 motor cycles and 61 motor cars were imported.

Rangoon trade: foreign exports.

194. The chief commodities exported from Rangoon were, in the order of value, rice husked and unhusked, rice bran, wood and manufactures of wood, mineral oils, raw hides and skins, raw cotton, grain and pulse (excluding rice) and pig lead. The principal feature in the rice trade was the high level of prices. There was a decrease of nearly 4 million cwts. in the quantity exported but a rise of Rs. 25·43 lakhs in value. Owing to good crops in India shipments coastwise fell by over 5 million cwts., but those to foreign countries rose by nearly 1½ million cwts. The decline in exports is attributed to the unseasonable weather and rain

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

in January 1912 which caused considerable damage to outlying paddy and retarded the shipment of the new crops. The high prices realised were due to the demand from the East owing to a shortage of crops in Saigon, Siam and China. Shipments to almost every Eastern port showed an increase, and the Eastern demand was so great that damaged (yellow) rice was shipped to the Straits and even to Europe at prices which in an ordinary year would be considered abnormal. Rice bran exports advanced by 19·5 per cent. in quantity to 213,078 tons valued at Rs. 85·67 lakhs. More than half of this total was taken by the United Kingdom, Germany coming second with 60,111 tons or more than double the quantity taken last year. The total tonnage of the foreign and coasting exports of teak wood was the highest hitherto attained. The total value however showed a slight falling of reflecting a drop in the quality of the timber. This was most noticeable in the case of foreign exports which included considerable quantities of timber of a class lower than that usually accepted by such markets owing to the shortage of first class timber. Exports to foreign countries receded nearly 6 per cent. in quantity and 13 per cent in value. Shipments coastwise on the other hand advanced by 9·4 per cent. in quantity and by 10·5 per cent. in value. Owing to the strong demand in India prices rose towards the end of the year. The oil industry continued to flourish and though the exports of kerosene oil in the foreign and coasting trade were less by nearly 7 million gallons there was an increase of over 12 million gallons in the case of benzine, fuel oil and lubricating oil. Japan increased her supplies of paraffin wax from 26,000 to nearly 40,000 cwts. on account of the growth of a native candle industry. The development of this industry in Japan, the Philippines and the Dutch East Indies caused a decrease in the export of candles to Eastern ports. The deficiency was however more than made up for by the expansion of the trade in other directions and the net increase of the candle trade was half a lakh. Hides and skins showed a substantial advance of 14·6 per cent. on the previous year, Italy followed by Asiatic Turkey being again the best customers for raw hides. Dressed hides suffered a further decline. The exports of raw cotton were the largest on record amounting to Rs. 36·60 lakhs for the foreign trade and Rs. 30·14 lakhs coastwise. The increase was due to the larger area under this crop and the reduced overland exports to China. Of the total exports 64·4 per cent. went to the United Kingdom and 24·5 per cent. to Japan. The increase of exports to India and to Japan were attributable to the shortage of the Indian crop, of which Japan is a large buyer. Prices ruled lower as a result of the record American crop but the downward tendency was to some extent contracted by the short crop in India. Pulse, principally beans, improved by Rs 3·54 lakhs, the United Kingdom being the best customer. The output of pig lead was restricted owing to the transfer of the smelters of the Burma Mines, Limited, from Mandalay to Namtu. Oil cake rose by Rs. 3½ lakhs. Cutch fell in value by Rs. 4 lakhs, in spite of an increase in the coasting trade. Rubber advanced from 114,464 lbs. valued at Rs. 3·81 lakhs to 282,240 lbs. valued at Rs. 8·75 lakhs, the increase being due to the larger output of plantation rubber. The total quantity exported from the Province was 310,240 lbs. The exports of wolfram ore from Rangoon advanced from 3,274 cwts. to 10,158 cwts., but the total figures for the Province were 29,112 cwts. valued at Rs. 17·85 lakhs. The largest customers were the United Kingdom with 14,028 cwts. and Germany with 7,577 cwts. Groundnuts fell heavily by 50 per cent. to 54,187 cwts. in spite of extensions in cultivation. This was due to increased local extraction of groundnut oil and oil cake. Jadestone declined owing to the troubles in China where the rough jadestone is sent to be cut. There was an improvement in shipments of lac to foreign countries, most of which was seed lac. The hope that the establishment of two refineries in Rangoon would lead to an increase of exports in refined lac was not realised owing to a difficulty in obtaining regular supplies of the raw material and the fall in prices in Europe and America.

Rangoon trade: British share.

195. The United Kingdom's share of the trade of Rangoon was 56 per cent. of the imports and 16 per cent. of the exports. The British Empire supplied 65·78 per cent. of the imports and took 42·43 per cent. of the exports. The

shares taken by other countries grouped by continents are for imports and exports respectively, Europe 16·98 and 18·90 per cent., Asia 12·34 and 31·18 per cent., Africa ·16 and 6·17 per cent. and America 4·74 and 1·32 per cent. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

196. The combined value of the import and export coasting trade in private merchandise fell by 14 per cent. to Rs. 1,564·56 lakhs. This decline was due to a reduction of Rs. 286·77 lakhs in the value of rice shipments, owing to better crops in India. Imports continue to improve and totalled Rs. 765·62 lakhs. The most noticeable feature was the import of 93,382 cwts. of rice from Bengal as against 37,185 cwts. in 1910-11, due no doubt to the high prices ruling in Rangoon. The chief increases were in grain and pulse, manufactures of cotton, seeds, oils, metals and umbrellas. Excluding the figures for rice the export trade showed a steady improvement under most heads, particularly under those of raw cotton, and wood and its manufactures. Mineral oils declined. Excluding rice, the value of exports exceeded by Rs. 204·27 lakhs or 42 per cent. the average of the five years ending 1907-08. Rangoon: coasting trade.

197. The combined import and export trade to foreign countries at subordinate ports advanced by 22 per cent. In imports Moulmein declined by Rs. 4·22 lakhs distributed under several heads. Akyab increased by Rs. 3 lakhs owing to the importation of materials for the Buthidaung-Maungdaw Tramway. The trade of Tavoy and Mergui expanded rapidly principally in articles of food, manufactures of metal and matches. Subordinate ports.

The export trade of Moulmein declined owing to smaller shipments of teak and rice but more tobacco and rice bran were exported. In descriptions of wood other than teak shipments to the extent of 17,000 tons were made and this trade may develop. Akyab and Bassein exported more paddy and rice to foreign countries. The exports from Tavoy advanced 58 per cent. owing to the large exports of wolfram ore amounting to 16,380 cwts. valued at Rs. 9·80 lakhs. Mergui advanced by 35 per cent. due to increased exports of wolfram ore, mother-of-pearl and fish manures.

The coastwise trade, imports and exports increased by 1 per cent. Imports increased by 3 per cent., mainly due to the development of Tavoy and Mergui in respect of plantations and mines. Exports declined by 5 per cent., Moulmein exporting less teak and Bassein and Akyab less rice and paddy. Tavoy and Mergui on account of larger shipments of rubber and wolfram ore to Rangoon increased their trade by 31·9 and 27·2 per cent. respectively.

198. The total value of the transfrontier trade registered during 1911-12 amounted to Rs. 647·81 lakhs, the imports being Rs. 326·44 lakhs in value and the exports Rs. 321·37 lakhs. This was Rs. 43 lakhs or 7 per cent. more than in 1910-11. Merchandise, timber and silver represented approximately 70, 5 and 25 per cent. of the aggregate trade. The excess of imports over exports was Rs. 5 lakhs only as compared with Rs. 42 lakhs in the preceding year, and for the second time on record the exports of treasure slightly exceeded the imports. The marketing of a bumper harvest in the Northern Shan States and the absence of cattle disease in the Southern Shan States and in Siam were the chief features of the year. The aggregate trade with all countries except Western China grew considerably, the increases ranging from 6 to 16 per cent. Transfrontier trade: total trade.

199. The value of the trade with Western China was Rs. 77 lakhs, 14 per cent. less than in the previous year. The Tonkin-Yünnanfu railway, a boycott of British trade in Yünnanfu, the collapse of the bridge over the Salween on the main road from Têngyüeh to Talifu, the uncertain state of the markets throughout Yünnan while the revolution was in progress and the rise in freights on the Irrawaddy towards the end of the year owing to the cessation of competition are all given as reasons for the decline. Western China.

After the establishment of the Chinese republic a brisk recovery set in. Silver, raw silk, living animals, hides of cattle, orpiment and husked rice in the order named were the chief imports, while Indian cotton, twist and yarn, and

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

European cotton piece goods, silver, woollen piece goods, jadestone and wet salted fish (*ngapi*) headed the list of exports. Of the latter the first two were the most important amounting to Rs. 27 lakhs out of a total export trade of approximately Rs. 43 lakhs.

The Northern Shan States.

200. Imports from the Northern Shan States declined by almost Rs. 8 lakhs but exports increased by Rs. 37 lakhs in value, the gross trade amounting to Rs 238 lakhs. The removal by the Burma Mines, Limited, of their smelting works from Mandalay to Namtu, involving as it did the cessation of the import of lead ore, depressed the import and inflated the export figures to the extent of Rs. 14 and Rs. 11½ lakhs respectively. Exports of teak fell by Rs. 5 lakhs but the bumper rice harvest of 1910-11 which was sold at high prices in Burma, fetched Rs. 7 lakhs more than that of the previous year and black tea over Rs. 3 lakhs more. A brisk export trade in oil, fish, yarn and piece goods resulted while in addition Rs. 4½ lakhs more of silver than in the preceding year were taken out of Burma. The export trade, much of which is a transport trade with China, especially in the case of yarn, was stimulated by a fall in the value of the rupee from 48 taels per Rs. 100 in 1910-11 to 42 taels in the year of report. Lead, wet or pickled tea, black tea, silver, husked rice, living animals, hides, cigar wrappers (*thanatpet*), til seed and oranges were the most important imports in the order named. The chief exports were in order of value, cotton piece goods, iron, silver, cotton twist and yarn, wet salted fish (*ngapi*), dry fish, salt, and petroleum and other oils.

The Southern Shan States.

201. Trade with the Southern Shan States again increased and totalled Rs. 196 lakhs, the imports being Rs. 8 lakhs and the exports Rs. 3 lakhs more than in 1910-11. Increased sales of cattle and the withdrawal of elephants due to a restriction of timber operations accounted for the rise in the import figures. An increase of 1,000 maunds in the imports of raw cotton is worthy of notice though the total amount was still very small. The export of silver rose by Rs. 2·75 lakhs probably in payment for the cattle. Living animals, silver, cigar wrappers (*thanatpet*), potatoes, paints and colours, garlic, oranges and husked rice were the main imports, while cotton piece goods, silver, petroleum and other sorts of oil betel nuts, silk piece goods, apparel, dry fish, salt and ghi headed the list of exports.

Siam and Karenni.

202. The total trade with Northern Siam was valued at Rs. 69½ lakhs, a rise of almost 9 per cent., mostly under exports, and accounted for by the recovery in the cattle trade. Silver, teak, and cattle and other animals were the only important heads in the import trade, and silver, cotton piece goods, cotton twist and yarn, silk piece goods and apparel were the chief exports.

The gross trade with Southern Siam showed increases both under imports and exports, the total being Rs. 22 lakhs or Rs. 3 lakhs more than in the previous year. Manufactured silk piece goods, live animals for sale, particularly cattle, silver, and precious stones accounted for practically the whole import trade. Silver represented nearly one-half of the total exports, silk piece goods, iron, apparel and cotton piece goods coming next.

The trade with Karenni aggregated Rs. 44 lakhs. The imports were a lakh and the exports Rs. 5 lakhs more than in 1910-11. There was a decline in the teak imported and an increase under the head of elephants both due to the growing exhaustion of the forests. The number of cattle brought down for sale rose considerably. The increase in exports was mainly in treasure.

Public Works.

Administrative and general.

203. No important administrative changes took place in the Department of Public Works during the year. A Consulting Architect to the Local Government was appointed in April 1911. The transfer of the Ruby Mines Subdivision, comprising public works in the civil district of that name from the Bhamo to the Shwebo Division was carried out from the 1st May 1911. The total expenditure of the Department under all heads, excluding Irrigation, was Rs. 116·07 lakhs, an

increase of Rs. 15·55 lakhs on that for the previous year. Lack of money again led to the postponement of many important projects, including the housing of the Police throughout the Province generally, the provision of increased court-house accommodation in Lower Burma and the general separation of habitual from casual prisoners in jails.

(i) Roads and Buildings.

Communications.

204. The total length of metalled and unmetalled roads, respectively, in the Province outside Municipal boundaries and maintained by the Public Works Department and the Local authorities was at the close of the year 2,010 and 10,311 miles respectively. Of this total, 2,004 miles of metalled and 8,961 miles of unmetalled road were maintained by the Department, the remainder being under the care of the Local authorities. The provincial increase during the year was 14 miles of metalled and 75 miles of unmetalled road.

The total expenditure on communications including Provincial, Excluded Local Funds, and Contribution amounted to Rs. 41·29 lakhs, of which Rs. 11·75 lakhs were for original works and Rs. 29·55 lakhs for repairs. In 1910-11 the expenditure was Rs. 10·17 lakhs for original works and Rs. 25·33 lakhs for repairs. Special activity was displayed in the Tavoy and Mergui Districts of the Tenasserim Division where considerable additions and improvements to the existing lengths of metalled and unmetalled roads are either under construction or in contemplation with a view to the development of the rubber planting and wolfram and the mining industries.

Among other works of importance finished or in progress during the year the completion of the Seniku-Lauhkaung road on the Myitkyina frontier at a cost of Rs.1·22 lakhs, the metalling of the Henzada-Ngathainggyaung, Danubyu-Kyontani, and Kyangin-Petyè roads in the Irrawaddy Division, the erection of a steel truss bridge over the Thabyu creek in the Thatôn District, and the construction of a 90-feet reinforced concrete arch bridge, the first of its kind in the Province, on the new Kyaukmè-Namhsam road in the Northern Shan States are all worthy of mention.

Buildings—Imperial and Provincial.

205. The expenditure on Imperial Civil Works amounted to Rs. 1·82 lakhs for the year as against Rs. 2·55 lakhs in the previous year. Of this sum nearly Rs. 85,000 was spent on original civil buildings and nearly Rs. 64,000 on repairs.

The erection of new buildings for the Postal and Telegraph Departments accounted for much of the original expenditure. There was an increase of Rs. 7·77 lakhs in the expenditure on civil buildings as compared with the previous year, the total amount spent being Rs. 26·56 lakhs. Original works claimed Rs. 18·97 lakhs and Rs. 7·59 lakhs was spent on repairs. A special grant for Educational Works was allotted by the Government of India which permitted the inception of several works in various parts of the Province.

Among the more important projects in progress or completed during the year were the construction of a District Court-house and Record-room for the new Insein District at a cost of nearly a lakh, the completion of the Forest School at Pyinmana, the construction of the new Press at Rangoon on which Rs. 3¾ lakhs were expended, additional accommodation for the police in the towns of Rangoon, Thatôn, Papun, Ma-ubin, and Kyaiklat and the acquisition of the Burma Engineering Company's property at Dawbong at a cost of Rs. 1 lakh for the use of the Marine Department for repairs to Government vessels.

Miscellaneous Public Improvements and Sanitary Works.

206. Funds were allotted for improving town roads in the civil stations of Myaungmya, Pyapôn, Mawlamyainggyun and Pyu. Marine works have already been discussed in the preceding Chapter. Sanitary works included an infiltration gallery at Thayetmyo and Pyinmana, the raising of the Moulmein reservoir, the commencement of water-supply schemes for the towns to Minbu, Kyaiklat, and Tharrawaddy, and drainage works at Mandalay, Paungdè, Akyab and Thayetmyo. The sewage works for Kyaiklat estimated to cost Rs. 1·26 lakhs were commenced during the year. Town lands reclamation work in Rangoon was restricted for

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

want of funds, but the work at Pyapôn continued successfully. It is proposed to extend the operations to other Deltaic towns when the dredger is available. The chief work falling under the head "Contribution" was the completion of Syriam Hospital at a total cost of Rs. 73,922.

(*ii*) *Railways and Tramways.*

Railways—Construction and surveys.

207. The Burma Railways Company continued to manage the railway system of the Province during the year of report. The length of open line was 1,528·78 miles, the slight increase of 1·70 miles being due to the completion of the Malagon-Bawktaw branch. Considerable progress was made with construction work on the Southern Shan States Railway and if sufficient funds are forthcoming it is anticipated that the line will probably be opened up to Aungban at the 72nd mile in the spring of 1914. Reports on the projected Ta Hapalai-Nampai, Nyaunglebin-Madauk and Nyaunglebin-Pado Railways were received but it is not proposed to proceed with the projects at present. The Local Government recommended the construction of the Pyinmana-Myinbyin, and Alon-Saingbyin lines, reports for which were also received but there is no early prospect of the Railway Board being able to provide the necessary funds. A sum of Rs. 9·91 lakhs was however sanctioned for the Malagon-Dawbong siding including a bridge over the Pazundaung creek.

In the Tenasserim Division surveys have been sanctioned from Ye to Tavoy, from Tavoy to Amya *viâ* Myitta, from Moulmein to Three Pagodas and from Ye to Three Pagodas.

Interruptions and accidents.

208. There were no serious breaches on the line caused by floods during the year and accidents of importance numbered eight only. Of these two were derailments and four collisions. A fire took place in a fireproof wagon loaded with explosives at Kotaungbo station on the 18th May 1911 through the spontaneous ignition of a box of dry gun cotton primers. Fortunately no violent explosion occurred. None of the accidents caused loss of life or grave injury either to the Company's servants or the public.

Traffic and finance.

209. The number of passengers carried on the main line and the Pegu-Moulmein and Henzada-Kyangin extensions was 23,966,266, an increase of over two million as compared with the previous year. The gross earnings rose to Rs. 211·76 lakhs and the working expenditure to Rs. 130·47 lakhs, leaving a net profit of Rs. 81·29 lakhs—an increase of 9½ lakhs on the figures for 1910-11. Both on the main line and on the extensions the percentage of expenses to earnings fell, and the percentage of earnings to capital outlay everywhere increased. No surplus profits have however been realised as yet from either of the extensions.

The capital outlay on the main line rose during the year by Rs. 46·87 lakhs and now amounts to Rs. 1,670·77 lakhs. The capital outlay during the year on the Pegu-Moulmein and Henzada-Kyangin extensions was Rs. 62,226 and Rs. 78,438 respectively, bringing the totals since the commencement of operations to Rs. 157·54 lakhs and Rs. 67·95 lakhs. Rupees 27·64 lakhs were spent on the Southern Shan States Railway during the year of report. The total outlay on this railway now amounts to Rs. 59·21 lakhs. Detailed estimates for the first two divisions of 72 miles aggregating Rs. 142·23 lakhs have now been sanctioned. The revised estimate for the whole railway of 105·04 miles amounts to Rs. 198·44 lakhs, of which that of the third division still awaits sanction.

Tramways.

210. The only addition to the number of tramways in the Province during the year is that between Maungdaw and Buthidaung in the Akyab District for the construction and maintenance of which authority has now issued to the Arakan Flotilla Company. The Rangoon Electric Tramways carried an aggregate of 9,810,289 passengers during the year, an increase of approximately 600,000. The running mileage was 1,454,097 and the receipts Rs. 8·38 lakhs, both figures being less than those of 1910-11. The Burma Electric Tramways and Lighting Company,

Limited, at Mandalay had, as in the previous year, 6½ miles of open line in operation. The number of passengers again rose slightly to 2,792,682. The mileage run was 479,025 as against 489,323, but the traffic receipts rose from Rs. 2·10 lakhs to over Rs. 2·20 lakhs. Some advance was made with the long delayed Madaya-Mandalay Light Railway. The section from the Zegyo bazaar at Mandalay to Obo, a distance of 3·40 miles, was opened on the 10th February 1912, and a second section up to Taungbyon a further distance of 4·90 miles just after the close of the year of report.

(*iii*) *Canals.*

Navigation Canals.

211. The Pegu-Sittang and Sittang-Kyaikto canals, 45½ and 14 miles long, provided with locks, are the only canals maintained out of receipts from navigation and solely for navigation purposes. The Twante canal with the Twante and Kanaungto creeks connected with it, forms the main route for launches and cargo boats between the China Bakir branch of the Irrawaddy and the Rangoon River, and the Shwetachaung canal in the Mandalay District, which is also an irrigation work, is much used for local traffic between Mandalay and Madaya. All other canals in the Province are primarily irrigation works and of no importance for navigation.

The Pegu-Sittang canal had a profitable year. The revenue was Rs. 1·70 lakhs, and the charges amounted to Rs. 1·03 lakhs leaving a profit of Rs. 67,064 as against Rs. 46,137 in the previous year. This rise in profit was almost entirely due to a decrease in expenditure, the revenue remaining stationary. Considerable difficulty was met with in keeping the canal clear of floating weeds after the rains.

The Sittang-Kyaikto canal continued to suffer from the competition of the Pegu-Moulmein railway. Its receipts fell from Rs. 7,730 to Rs. 5,420, while the charges rose from Rs. 9,635 to Rs. 11,046. The loss for the year was thus Rs. 5,626.

Rupees 6,000 was collected during the year from navigation on the Shwetachaung canal in the Mandalay District. A project for the widening, deepening and improving the Twante canal and its connected creeks was sanctioned by the Secretary of State in April 1911. The total estimated cost for direct and indirect charges is Rs. 72·81 lakhs. The purchase of special dredging plant costing Rs. 30 lakhs has also been sanctioned. Work commenced in July 1911, and before the close of the year a survey of the Kanaungto creek and of 11 miles of the canal were completed. Rupees 60,000 were spent in acquiring land against a project provision of Rs. 10 lakhs and the expenditure on account of dredging plant made in England amounted to Rs. 12 lakhs.

Irrigation.

Major irrigation works.

212. There are four Irrigation Works in the Province classed as Major and maintained by the Public Works Department, of which three, the Mandalay and Shwebo canals in the districts so named, and the Môn canals in the Minbu District, are in operation. The fourth—the Ye-u canal—also in the Shwebo District, remains still under construction.

An expenditure of Rs. 11,101 on the capital outlay of the Mandalay canal during the year brought the total capital outlay up to Rs. 53·40 lakhs. The area irrigated rose by 2,588 acres to 57,766 acres, owing to extensions of cultivation under two recently constructed distributaries and the absence of cattle disease. The revenue receipts were Rs. 3·52 lakhs and working expenses Rs. 92,387. The net revenue was thus Rs. 2·59 lakhs an increase of Rs. 22,000 on the previous year and representing a percentage of 4·86 on the capital outlay.

The area irrigated from the Shwebo canal was 123,110 acres as compared with 120,395 acres in the previous year. Several extensions and improvements were carried out and capital outlay rose during the year by Rs. 1·03 lakhs to the total of Rs. 57·92 lakhs. The total gross revenue obtained was Rs. 7·16 lakhs.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

The working expenses again rose and amounted to Rs. 2·33 lakhs as against Rs. 1·84 lakhs in the previous year. This increase was due partly to increased establishment charges and expenditure on upkeep, and also to the cost of revenue collections. The revenue is collected by village headmen who are remunerated by a commission on their collections and the cost therefore rises as the revenue expands. The net revenue of the canal was Rs. 4·82 lakhs, an increase of Rs. 60,000, and 8·33 per cent. on the capital outlay.

The Môn canals system consists of two canals, North and South, taking off respectively from the left and right bank of the Môn River at Mezali in the Minbu District, and was formally opened in May 1911. Rupees 3·89 lakhs were spent on capital outlay during the year and the total expenditure on this account amounted at its close to Rs. 53·12 lakhs. Though not quite completed the system supplied irrigation to 24,967 acres during the year. Much of this land was being brought under cultivation for the first time and under remission of land revenue and water-rate. No revenue was credited to the irrigation accounts during the year. The maintenance of the completed portion of the canals cost Rs. 72,586.

The Ye-u canal was still under construction at the close of the year, when the total capital outlay since the inception of the work was Rs. 12·76 lakhs, Rs. 2·27 lakhs having been spent during the year of report.

Minor irrigation works.

213. Of the Minor Irrigation Works in the Province the most important from a revenue point of view are the Zawgyi and Panlaung River systems in the Kyauksè District and the Man and Salin canals in that of Minbu. The area irrigated by the first two systems was 81,394 and 54,691 acres respectively, in both cases an increase on that of the previous year. A large area which is liable to flooding by the Panlaung River is regularly left fallow and proposals for training the river are now under consideration which it is hoped may improve the situation. The receipts for the Kyauksè District were Rs. 5·49 lakhs, and charges amounted to Rs. 1·91 lakhs, leaving a net surplus of Rs. 3·58 lakhs. In the Minbu District the Man and Salin canals irrigated 25,526 and 27,327 acres respectively, the area in each case showing a reduction as compared with that of the previous year. Some of the area formerly under the Man system is now supplied with water from the Môn canals. Receipts totalled Rs. 3·37 lakhs and working expenses were Rs. 85,000, only, leaving a net revenue of Rs. 2·52 lakhs.

In other districts the irrigation works are rather protective than revenue earning, the supply of water is inferior and much dependent on local rainfall which was during the year of report inferior in the dry zone. Consequently in most cases the charges for the year exceeded the receipts. Taking all minor irrigation works together the total net revenue was approximately Rs. 1¾ lakhs.

The Shwetachaung in the Mandalay District irrigated 13,592 acres as against 16,575, the Mu canal in Shwebo 7,001 as against 10,283, the Meiktila lake and Nyaungyan-Minhla tank in the Meiktila District 9,778 and 3,531 acres against 25,988 and 10,541 respectively and the Kyauksè tank in the Yamèthin District 5,076 acres against 4,325 in the previous year. The total area irrigated by the Minor Irrigation Works of the Department was 259,512 acres, a reduction of over 40,000 acres as compared with 1910-11.

CHAPTER V.

REVENUE AND FINANCE.

REFERENCES :—

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1912.

Administration Report of the Irrigation Department, Burma, for the year 1911-12.

Report on the Maritime Trade and Customs Administration of Burma for the official year 1911-12.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1911-12, Part I, Foreign Trade.

Report on the Administration of the Excise Department in Burma during the year ending the 31st March 1912.

Report on the Administration of Salt Revenue in Burma during the year 1911.

Note on the Administration of the Stamp Revenue in Burma for the year 1911-12.

Note on the working of the Income-tax Act, II of 1886, in Burma for the year 1911-12.

Reports on the Forest Administration in Burma for the year 1911-12.

Report on the working of the Rangoon Municipality for the year 1911-12.

Report on the Reclamation of Rangoon Town Lands for the year 1911-12.

Resolution reviewing the Reports on the working of Municipalities in Burma during the year 1911-12.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.

Statistics of British India, Parts IV (*a*), IV (*b*), and VIII.

Provincial Settlement.

214. The receipts and expenditure of the Province are classified under three main heads Imperial, Provincial and Local. The various funds coming under the head Local are dealt with in the later paragraphs of this Chapter. The allocation of any particular item of revenue or expenditure to Imperial or Provincial depends on the provisions of the Provincial Financial Settlement. This Settlement in the case of Burma was drawn up at the beginning of 1907 and came into operation from the 1st April of that year. As a result of the Report of the Decentralization Committee considerable modifications in the Settlement were made during the year 1910-11 and the revised arrangements came into force from the 1st April 1911. The principle underlying the system of Provincial Settlements is that the Government of India retains in the first place the entire profits of the commercial departments and in the second place all the revenue whose *locale* is no guide to its true incidence, such as the net receipts from Customs, Salt and Opium. The income from these sources being inadequate for the purpose of meeting the cost of the Imperial Services, special arrangements are made with the Government of each Province for the division of the remaining sources of revenue between Imperial and Provincial Funds.

The Provincial Settlement of 1907 will be found fully described in the General Administration Report of Burma for the year 1907-08. The changes now introduced have been made with the object of securing greater permanence in the distribution of revenue, and of converting unduly large fixed assignments into shares of growing revenue. The results of the changes introduced in 1911 into the previously existing arrangements are briefly that the Local Government retains five-eighths of the net Land Revenue instead of the half originally received by it, and the whole of the net forest revenue. As before half the revenue from Stamps, Excise, and Assessed Taxes are paid to Imperial Funds together with certain items under the heads *Interest*, *Miscellaneous*, *Stationery and Printing* and *Civil Works*. Expenditure, except in the case of a few heads, is divided between Provincial and Imperial in the same proportion as the receipts. In return for the increased revenues thus placed at the disposal of the Provincial Government the net contribution from Imperial to Provincial under the existing Settlement was

CHAP. V.—REVENUE AND FINANCE.

reduced to Rs. 12·90 lakhs. The Provincial Settlement, thus readjusted, is intended to be permanent, revision of its terms being only undertaken when the fixed assignment from Imperial to Provincial becomes unduly high and hampers the expansion of provincial revenue as compared with the growth of provincial expenditure. The desirability in urgent cases of special assistance from Imperial to Provincial Revenues or *vice versâ* was admitted and the system of special lump grants to individual Provinces for the purpose of admitting Local Governments to a share in an exceptional increase of prosperity or of affording the means of financing a policy which commends itself to the central authority was retained with certain modifications of the previously existing practice. In the year of report the contributions from Imperial to Provincial Funds were in excess of the net fixed assignment by Rs. 36·05 lakhs.

Gross Revenue and Expenditure.

215. The gross receipts classified as Imperial for the year 1911-12 totalled Rs. 384·41 lakhs as compared with Rs. 392·09 lakhs in the previous year, a reduction of over 7¾ lakhs. Provincial receipts rose by over 28 lakhs and aggregated Rs. 516·24 lakhs. The income of District and District Cess Funds advanced by three lakhs to Rs. 38·40 lakhs. The receipts of Municipalities were Rs. 98·47 lakhs, an increase of nearly five lakhs and those of other funds expanded by over 22 lakhs to Rs. 109·20 lakhs.

Imperial expenditure contracted during the year, the outgoings amounting to Rs. 66·44 lakhs as against Rs. 75·53 lakhs in 1910-11. Provincial expenditure rose by approximately 60 lakhs and amounted to Rs. 528·84 lakhs. District and District Cess Funds spent Rs. 35·49 lakhs as against Rs. 36·22 lakhs, and Municipalities Rs. 90·56 lakhs as compared with Rs. 87·06 lakhs in the previous year. The outgoings from other funds also rose, and totalled Rs. 97·82 lakhs as against Rs. 96·80 lakhs.

The transactions of the Rangoon and Moulmein Municipalities, the Rangoon Port Trust and the Rangoon Pilot Fund are included in these figures although these funds do not bank with Government.

(*a*) *IMPERIAL REVENUE AND FINANCE.*

[*In this section are discussed sources of Revenue or Expenditure which are partly, as well as those which are wholly, Imperial.*]

Total Imperial figures: notable variations.

216. The net decrease in Imperial receipts of Rs. 7·68 lakhs is the result of gross increases and decreases under various heads amounting in the aggregate to Rs. 44·56 lakhs and Rs. 52·24 lakhs respectively. The more important increases were Rs. 37·54 lakhs under Land Revenue, due mainly to a decrease in the net assignment from Imperial to Provincial revenues, Rs. 3·88 lakhs in Customs, Rs. 1·18 lakhs from Salt and Rs. 95,000 from Irrigation. The chief decreases were Rs. 50·54 lakhs under Forests, which has ceased to be a head of Imperial revenue and Rs. 1·13 lakhs in the case of Stamps. The fall of Rs. 9·09 lakhs in Imperial expenditure was mainly due to the transfer of all forest charges to the head of Provincial, which involved a decrease of Rs. 20·02 lakhs. Other decreases of Rs. 73,000 and Rs. 60,000 respectively occurred under Civil public works and Military works. There were increases of Rs. 7·98 lakhs in Capital expenditure on Irrigation not charged to Revenue and of Rs. 1·49 lakhs in General Administration, the result of a change in classification of the cost of the Public Works Section of the Account office. Other increases were for the most part insignificant, but the cost of Scientific and other Minor Departments rose by Rs. 58,000 as a result of the expenditure on Census Operations.

Further discussion of some of these variations will be found in the paragraphs which follow.

Land Revenue.

CHAP. V.—REVENUE AND FINANCE. Land Revenue receipts.

217. From the commencement of 1911-12 five-eighths of the receipts classified under the major head *Land Revenue* are paid to Provincial and three-eighths to Imperial Funds. As in the past the adjustment of contributions between Imperial and Provincial continues to be effected by the addition or subtraction of the amount concerned in the *Land Revenue* totals.

The figures of Land Revenue given in the finaficial accounts are for the financial year ending the 31st March. In the Land Revenue Administration Report the figures are for the agricultural year which ends on the 30th June. The bulk of the revenue is however collected in the nine months, ending in March, and though differences in the totals occur under several heads, the variations are not of great importance. The gross Land Revenue receipts as shown in the financial accounts amounted to Rs. 417·35 lakhs, an increase of over twelve lakhs on the figures for the previous year. After the adjustment of contributions the Imperial and Provincial shares of receipts totalled Rs. 106·69 lakhs and Rs. 310·66 lakhs respectively. The corresponding figures for the previous year were Rs. 69·15 lakhs and Rs. 335·86 lakhs. Land Revenue expenditure amounted to Rs. 68·24 lakhs, an increase of over three lakhs. The whole of this continues to be classified as Provincial. Land Revenue proper has already been discussed at the commencement of Chapter II. In spite of a small expansion in the demand, the inferior character of the season led to a large increase in remissions and the actual collections were more than a lakh below those for the previous year. For the first time for many years there was a decrease in the number of persons assessed to capitation tax in Lower Burma, every district, with the exception of Northern Arakan, in the Pegu and Arakan Divisions showing a decrease, while with the exception of Salween every district in the Irrawaddy and Tenasserim Divisions showed an increase. The demand however increased, but so did both remissions and outstandings with the result that the collections totalled Rs. 54·40 lakhs, an advance of less than Rs. 2,000 as compared with the previous year. Collection was difficult owing to the high price of rice and the consequent straitened circumstances of all the poorer non-agriculturists. The number of households assessed to *thathameda* in Upper Burma increased by over 13,000. The demand fell by nearly 5 lakhs, largely as a result of the reduction of the former rates prevailing in the Pakôkku and Lower Chindwin Districts consequent on the introduction of the new land revenue assessment. One result of the lowered rates is the tendency everywhere remarked to refrain from redistribution and to treat the tax as a capitation-tax. Remissions increased by Rs. 19,000 and collection fell to Rs. 36·96 lakhs, more than five lakhs below the figures for the previous year. The floods which adversely affected cultivation in the Deltaic parts of the Province had a similar effect upon the fishing industry and the year was in almost all districts a disappointing one. The fishery revenue demand showed a slight decrease on that of the previous year and there was a rise both in remissions and outstandings. Collections totalled Rs. 29·40 lakhs as compared with Rs. 30·03 lakhs in 1910-11.

Under *Miscellaneous Land Revenue* are grouped rent of town lands not credited to local funds; fees, rents, and royalties on petroleum, rubies, jade and amber and also on other minerals; receipts under the Village Act; survey fees for *pottas* and other miscellaneous land revenue. The royalties derived from the various minerals worked in the Province have already been dealt with in Chapter IV under the head Mines and Quarries. The total receipts under all the heads included in the groups amounted to Rs. 36·04 lakhs, an increase of Rs. 1·41 lakhs as compared with the previous year.

Canal (Navigation and Irrigation) Revenue.

218. The concluding paragraphs of Chapter IV deal with the canals and irrigation works of the Province and the revenue obtained from them during the year of report. Receipts and expenditure on Major Irrigation Works—including the works now in progress on the Twante Canal which is only used for

CHAP. V.—REVENUE AND FINANCE.

Navigation—are wholly Imperial. Those of the other works referred to in the paragraphs above mentioned are wholly Provincial.

Sources of Imperial Revenue other than the Land.

Customs.

219. Receipts and expenditure under Customs are wholly Imperial. The total revenue of the Rangoon Custom-house for the year 1911-12 was 160·52 lakhs, an increase of Rs. 3·73 lakhs over the receipts for the previous year. The total disbursements amounted to Rs. 7·51 lakhs, an increase of a little over half a lakh. The resulting net revenue was Rs. 153·01 lakhs as against Rs. 149·89 lakhs in 1910-11. There was a fall of Rs. 1·23 lakhs in the export duty, but import duty on salt and on imported goods showed an expansion of Rs. 1 lakh and Rs. 3·80 lakhs respectively. The net Customs revenue from subordinate ports was Rs. 26·04 lakhs as against Rs. 25·04 lakhs in the previous year.

Opium.

220. The Excise Department of the Province purchases opium from the Government of Bengal at Rs. 8-8-0 per seer and sells it to the licensed vendors of the Province at rates which were usually during the year of report Rs. 70 per seer. The licensed vendors make their profit by retailing the opium at the higher rates of Rs. 80 per seer and Rs. 100 per seer for the raw and cooked varieties. Special retail rates on a lower scale are permitted at certain shops in the northern districts on account of the facilities for obtaining smuggled Shan and Kachin opium. The purchase price paid to Bengal is credited to Imperial Revenue under the head of Opium. The profit made by the Excise Department is treated as revenue under the head of Excise, and the receipts and charges under this head are equally divided between Imperial and Provincial. Purchases from Bengal totalled in the year of report Rs. 3·95 lakhs as against Rs. 4·34 lakhs in 1910-11.

Salt—General.

221. Revenue and expenditure classified under the head Salt are wholly Imperial. The revenue is derived from the duty on the imports of foreign salt, the chief port of entry being Rangoon, and from duty on salt manufactured locally. In seven districts the duty is collected direct from bond by a special staff. Elsewhere it is assessed by means of a composition duty on the cauldrons or pots used in the manufacture. No change was made during the year in the law affecting salt or in the methods of the collection of duty. The rate of duty was raised from Rs. 2-3-6 to Rs. 2-11-9 per 100 viss, composition rates being altered in proportion, from the 1st January 1911. The amalgamation of the salt and excise establishments was sanctioned, but had not been brought into operation by the end of the year. A separate Salt Bill for Burma was still under preparation.

Supplies of Salt.

222. The estimated output of salt in the districts under composition duty was 67,827 maunds, an advance of over 1,000 maunds on that for the previous year. The seven districts under direct taxation on output produced 646,358 maunds against 550,694, the total increase for the Province being thus 96,732 maunds. The increase is almost entirely confined to the districts under direct taxation and is ascribed generally to the favourable character of the season.

The total collections rose to Rs. 3,93,175, an increase of 38 per cent. in the districts under direct taxation and slightly over 3 per cent. in those under the composition duty. Imports of foreign salt showed an increase of nearly 41½ per cent. over the figures for 1910, and were in excess of the figures for any previous year. The small quantity in bond at the commencement of the year, the large requirements of the local fishing industry and forward shipment to up-country centres in anticipation of the enhanced rates of freight now charged by the Irrawaddy Flotilla Company all contributed to the increase. The total duty realised on foreign salt was Rs. 19·32 lakhs, and the quantity in bond at the end of the year had risen from 67,000 to 203,000 maunds. The chief feature of the year was a large rise in the quantity of salt imported from England. The consumption of Spanish salt is steadily increasing, but Germany is still the chief exporter.

Excise—General.

223. The gross receipts under the head Excise for the year 1911-12 aggregated Rs. 76·87 lakhs as against Rs. 75·89 lakhs in the previous year. Revenue from liquor increased by Rs. 4·04 lakhs, almost entirely in Rangoon, where competition between rival Chinese factions at the annual auctions caused a great advance in the price realised for licenses. In return the receipts from opium duty and license fees fell by Rs. 3·24 lakhs as a result of the more vigorous prosecution of the restrictive policy of Government.

Excise—Opium.

224. The total opium revenue decreased from Rs. 37·50 lakhs to Rs. 34·26 lakhs. The total quantity of excise opium (including confiscated opium) issued to licensed shops during the year fell to 47,846 seers a decrease of 4,381 seers. More than a quarter of this decrease occurred in Rangoon Town, but issues also fell in twenty out of the twenty-seven districts supplied with excise opium. The decrease in the Irrawaddy Division was 2,298 seers and the departmental report indicates that the policy of cutting down the individual allowances of registered purchasers was here carried to excess. The number of registered consumers in Lower Burma fell from 15,298 to 14,049. There was a decrease in the number of persons convicted under the Opium Act but the quantity of opium seized rose from 1,665 seers to 1,713 seers. Opium smuggling is very prevalent on the steamers plying between Calcutta and Rangoon and no fewer than 20 seizures were made by Excise and Custom Officers on such vessels during the year. At the close of the year of report an increase of some 25 per cent. was made in the wholesale and retail price of opium and at the same time Indian opium was substituted as the supply to the shops in the four northern districts on account of the high price and scarcity of the non-Indian opium formerly supplied.

Excise—Liquors.

225. The total imports of spirits, omitting imports from the Provinces of India, aggregated 230,991 gallons during the year, an increase as compared with 1910-11 of 1,710 gallons. Less brandy, gin and whisky were imported, but more rum. The consumption of imported malt liquor increased by 39,028 gallons, and there is no doubt that the Burman consumer is cultivating a taste for imported beer; beer locally manufactured again shows a decrease of 16,014 gallons. The Burma Chamber of Commerce were consulted on several proposals for improving excise control in regard to imported liquors and these and other changes were introduced during the year.

The fees obtained from licenses for the vend of foreign liquors and Burma made foreign spirit increased from Rs. 9·71 lakhs to Rs. 11·31 lakhs. As has been already explained practically the whole of this increase was obtained in Rangoon. Elsewhere decreases occurred in 21 districts and increases in 15. Foreign spirit excised at the Tariff rate was manufactured at the Mandalay, Moulmein and Toungoo distilleries, but the total issues fell from 33,646 London proof gallons in 1910-11 to 27,508 gallons in the year of report. The cause of the continued set back of this distillery industry is stated to be the high cost of production in Burma of Re. 1-10-0 a gallon, whereas Java rum can be landed in Rangoon at Re. 1 a gallon. The contract distillery system for the supply of country spirit was continued in the Tenasserim Division, parts of the Mandalay Division and the Akyab District. The outturn was 5,810 London proof gallons on which a duty of Rs. 23,564 and license fees amounting to Rs. 17,850 were paid. The total receipts were roughly Rs. 2,000 less than those of the previous year.

The experimental introduction of country spirits into the towns of Rangoon, Moulmein, and Bassein with a view to displacing cheap foreign spirit and country beers was an important feature of the year's liquor administration. Retail licenses increased from 73 to 74 and fees from Rs. 53,115 to Rs. 76,060, but as this rise is unsupported by a corresponding rise in consumption it is regarded in the departmental report as due to temporary causes. Outstills decreased and receipts in outstill areas fell by Rs. 4,080 from Rs. 56,590 to Rs. 52,510.

Shops for the sale of *Tari* numbered 718 only, having decreased by 519 in ten years. There is no indication of a corresponding drop in consumption licit and illicit, and the revenue from *Tari* license fees increased from Rs. 6·89 lakhs to Rs. 7·42 lakhs. There was a decrease of two in the number of licenses for country

CHAP. V.—REVENUE AND FINANCE.

fermented liquor other than *Tari*, but the revenue from license fees rose by Rs. 2·09 lakhs. More than the total provincial increase was returned by Rangoon Town where excited and keen competition at auctions again led to inflated prices. The number of persons convicted for illicit distillation rose from 504 to 803 and the quantity of country spirits seized from 1,898 to 2,567 gallons.

Ganja, Cocaine and Morphia.

226. The use of Ganja as in former years continued to be confined to the Indian population. Seizures rose from 971 to 1,271 seers. Cocaine licenses increased from 34 to 41. Seizures of this drug fell from 3,244 to 2,359 ounces. The cocaine habit has not spread to any extent into fresh areas during the year, a result attributed to the concentration of efforts upon the interception of supplies in Rangoon. Seizures of morphia also fell from 1,026 to 477 ounces, but there is no reason to believe that its use any more than that of cocaine has been really checked.

Stamps.

227. The gross receipts under the Stamp Act and the Court Fees Act in 1911-12 were Rs. 36·71 lakhs, a reduction of Rs. 2·25 lakhs as compared with the previous year. A change in the system of realizing copying fees was answerable for over Rs. 80,000 in the decrease under Court-fees, and there were certain abnormal causes which raised the receipts under both Acts in 1910-11. The Stamp revenue has however for some years been stationary or declining and there is no sign yet of recovery. The actual decrease is Rs. 41,000 under the Stamp Act and Rs. 1·84 lakhs under Court-fees. The decrease in Court-fees was general throughout all the important districts of Lower Burma, with the exception of Bassein, Prome and Toungoo. Upper Burma districts on the other hand show a small increase. The fall in Rangoon was Rs. ·58 lakh or above the percentage for Lower Burma as a whole. Litigation has possibly been affected by the financial stringency accompanying the failure of several joint stock enterprises during the year. Depression of trade and the continued restriction of Chetties' business are the only reasons advanced in other districts.

The number of licensed vendors decreased by 76. The number of cases of unstamped or insufficiently stamped documents dealt with by Collectors and by Courts rose to 958 and 692 respectively, but in both cases the amounts realized as duty and penalty declined. Prosecutions instituted fell from 105 to 83. The number of cases in which valuations made in connection with applications for probate or letters of administration were enquired into as well as the amount of deficit Court-fees required were larger than in 1910-11.

Assessed Taxes.

228. The Income-tax Act is applicable to the whole of Burma, but was enforced in Upper Burma outside Mandalay only in the case of employees of industrial and commercial companies who were resident, but not permanently domiciled in Upper Burma and of Government servants. The total collections for the Province were Rs. 19·39 lakhs, an increase of half a lakh on the previous year. There was an increase in both the number of assessees and the amount of tax collected on salaries and pensions paid by Government. The rise in the total value of the securities held in the Province continued, the total value being Rs. 445·82 lakhs,—Rs. 28·70 lakhs or nearly seven per cent. more than in 1910-11. The number of assessees and the tax realised under "Salaries paid by local authorities" declined, owing to a reduction in the working staff of the Rangoon Port Commissioners and the transfer of District Cess Fund works in several districts to the Public Works Department. The tax collected on salaries paid by companies and other private employees rose to Rs. 3·23 lakhs and the assessees to 5,060. The profits of 65 companies were assessed as against those of 62 in 1910-11, but the increase in collections was only one per cent. The figures with regard to assessments on private income are not so satisfactory. The amount realized fell to Rs. 7·65 lakhs, as against Rs. 7·83 lakhs in 1910-11 though the assessees increased by over 200. The decrease in collection occurred chiefly in the Pegu and Tenasserim Divisions, the reason generally assigned being depression of trade and contraction of credit. Steps are being taken to ascertain if the lack of expansion shown by the tax is really due to these causes, and not to faulty assessment.

The total expenditure rose slightly, the percentage to total collection being 2·97 as against 2·92 in the previous year. The tax was collected with little difficulty though coercive measures were undertaken to a considerable extent in Myaungmya and Rangoon. No change was made in the method of assessment or in the agencies employed.

(b) REVENUE AND FINANCE OTHER THAN IMPERIAL.

Provincial Receipts and Expenditure.

Provincial receipts.

229. The Provincial receipts rose by over 28 lakhs to Rs. 516·24 lakhs. Several of the heads which are divided between Imperial and Provincial Funds have already been discussed. The share of receipts under Land Revenue credited to Provincial fell by Rs. 25·20 lakhs, the increase in the proportion of Land Revenue collections credited to Provincial under the modified financial arrangements being more than counterbalanced by the decrease in the fixed assignment received from Imperial Funds, which fell from Rs. 132·77 lakhs in 1910-11 to Rs. 48·95 lakhs in the year of report. Excluding contributions, there was an actual increase of the Provincial share of Land Revenue amounting to Rs. 58·61 lakhs. This is not reflected in the departmental figures, owing to the difference between the financial and the agricultural year already mentioned. The assignment of the whole instead of a moiety of the forest receipts and expenditure to Provincial Funds led to an increase of Rs. 49·14 lakhs in the receipts under this head. Other variations are increases of Rs. 1·15 lakhs under Law and Justice owing to the realization of copying fees in cash instead of by stamps, of Rs. 2·70 lakhs under Irrigation—Minor Works and Navigation, to be explained in the same way as the figures for Land Revenue, and of half a lakh each under Police and Excise. The decrease of Rs. 1·13 lakhs under Stamps is the corollary to the increase under Law and Justice dealt with above. The Provincial share of assessed taxes shows an increase of Rs. 21,000 as a result of a change of system, the Income-tax recovered in the Public Works Department and formerly classed as Imperial having been divided equally between Imperial and Provincial.

Provincial expenditure.

230. Provincial expenditure showed a net increase of Rs. 59·99 lakhs over that in 1910-11, the figures amounting in the aggregate to Rs. 528·84 lakhs, as compared with Rs. 468·86 lakhs. The most important contribution to this increase was the rise of Rs. 22·55 lakhs in forest charges which are now wholly debited to Provincial Funds. Forest receipts and expenditure are further discussed in the next paragraph. Civil Public Works cost Rs. 12·76 lakhs more than in the previous year, for which increase a special grant of Rs. 8 lakhs for the construction of schools and hostels is mainly responsible. Expenditure on Police rose by Rs. 5·77 lakhs to Rs. 126·76 lakhs. This continues to be the most expensive department in the Province and accounted for more than one-fifth of the total Provincial expenditure during the year of report. General Administration and Land Revenue charges increased by Rs. 4·25 lakhs and Rs. 3·12 lakhs respectively, expenditure on account of the Royal Visit being among the contributory causes. The payment of a larger contribution towards the River Training Works of the Rangoon Port Trust, partly counterbalanced by smaller outlay on Sanitary Works, led to an increase of Rs. 3·45 lakhs under *Civil Works—Civil. Education* and *Irrigation—Minor Works and Navigation* both showed increased charges of over a lakh, and smaller increases occurred under almost every other head, the only decreases being one of Rs. 30,000 under *Stationery and Printing* and an insignificant fall in the charges under *Stamps*.

Next to *Police* the most costly head was *Civil Works (Public Works Department)* with outgoings of Rs. 80 lakhs, Land Revenue cost Rs. 68 lakhs, Courts of Law Rs. 47½ lakhs, and Forests Rs. 42½ lakhs. Medical services and *Civil Works—Civil* absorbed Rs. 22 and 21 lakhs, respectively, Education Rs. 20 lakhs and the Provincial share of the charges classified under General Administration Rs. 19 lakhs.

CHAP. V.—REVENUE AND FINANCE. Forests.

231. The Forest Department Report deals with the year ending on the 30th June. The figures of revenue and expenditure given therein accordingly differ from those of the Financial Department. The gross revenue of the Forest Department for the year ending June 1912 amounted to Rs. 94·30 lakhs, or Rs. 11·09 lakhs below the figures for 1910-11. Special circumstances continued to swell the revenue in that year and the figures for the year of report are still more than two lakhs in excess of those for 1909-10. Expenditure rose during the year from thirty-nine to forty-one lakhs of rupees. The net revenue was Rs. 53½ lakhs as compared with Rs. 66½ lakhs in 1910-11 and the percentage of net to gross revenue fell from 63·0 to 56·6 per cent.

Local Funds.

District Cess Funds.

232. District Cess Funds are maintained for each of the nineteen districts of Lower Burma and for Thayetmyo which falls partly within the Upper and partly within the Lower Province. The greater portion of the income of the funds is derived from a 10 per cent. cess on the collection of ordinary Land Revenue in the several districts, and the total is swelled by collections from certain markets, the license fees on ferries and slaughter-houses and other receipts from rural areas. The total receipts for the year were Rs. 31·22 lakhs as against Rs. 29·71 lakhs in 1910-11. The aggregate increase of Rs. 1·51 lakhs is mainly due to an expansion of nearly a lakh in Provincial rates, the head to which collections on account of the 10 per cent. cess are credited. The contributions sanctioned by the Local Government from one District Cess Fund to another to meet temporary overdrawals and the repayments of these contributions, both credited to the head "*Miscellaneous*," amounted to Rs. 2·84 lakhs as against Rs. 1·90 lakhs in 1910-11. If these figures be omitted from the receipts of both years the net revenue under this head becomes Rs. 3·59 lakhs, an increase of over Rs. 7,000, mainly due to larger bazaar daily collections. Omitting the contributions from Provincial Revenues in aid of education which fell to Rs. 2,967 in the year of report and recoveries of service payments made in former years, the revenue under Education was stationary. Expenditure decreased by Rs. 44,000 to Rs. 29·24 lakhs. The transfer of the majority of the civil works carried out by the District Cess Funds from Civil to Public Works Department officers continued during the year and nearly 90 per cent. of civil works were carried out by the Public Works Department. All funds were solvent during the year, though in two cases the fund balance was temporarily overdrawn during the year.

District Funds.

233. There are sixteen District Funds in Upper Burma, one for each district except Thayetmyo. These funds are not supported by any cess on Land Revenue collections and obtain their supplies from various sources, such as market, ferry and slaughter-house license fees and occasional grants from Provincial Revenues. The total revenue of all the funds was Rs. 7·18 lakhs and the total expenditure Rs. 6·31 lakhs. The increase in revenue amounted to Rs. 1·81 lakhs, principally as the result of larger contributions from Provincial Revenues in aid of Public Works. The net decrease in expenditure was Rs. 22,305, and occurred mainly under civil works. The Public Works Department carried out 74 per cent. of these works as against 27 per cent. in 1910-11 All funds were solvent at the close of the year.

Other Funds.

234. There were seven Cantonment Funds in the Province, the same number as in the previous year. In only two cases Mandalay and Rangoon were the figures for revenue or receipts over Rs. 20,000. The total income of all Cantonments excluding debt accounts and opening balances amounted to Rs. 1·93 lakhs and the total expenditure to Rs. 1·71 lakhs, a decrease of Rs. 26,495 and Rs. 83,882 respectively as compared with the previous year. In the case of two of the smaller funds expenditure exceeded income and the deficit was met from the opening balances. All the funds are solvent but the necessity for strict economy in Thayetmyo is pointed out in the report.

Town Funds as in the previous year were seventeen in number. The total income of these funds amounted to Rs. 5·87 lakhs, an increase of nearly a lakh over that of the previous year. The total expenditure increased by Rs. 62,532 and aggregated Rs. 5·12 lakhs. All the funds possess large closing balances amounting in all to Rs. 2·89 lakhs.

Excluding that of the Rangoon Port Trust there were six Port Funds, of which the most important are those of Akyab, Moulmein and Bassein. Expenditure exceeded receipts in the case of both the first named funds, but all closed with large balances and all are reported to be solvent. The total receipts were Rs. 4·23 lakhs and expenditure Rs. 4·30 lakhs during the year. Moulmein, Tavoy and Bassein are indebted to Government, the total being Rs. 1·80 lakhs. The four Pilot Funds of Rangoon, Akyab, Moulmein and Bassein all closed the year with credit balances. The Rangoon Police Reward Fund derives its income from fines recovered from policemen, and is utilised in rewarding members of the force for good conduct in arresting criminals and obtaining convictions. Rupees 568 was disbursed during the year as against Rs. 1,085 in the previous year.

The Educational Syndicate Fund derives its income mainly from examination fees, and contributions of Rs. 5,000 from Government and Rs. 500 by the Rangoon Municipality for the upkeep of the Bernard Free Library. The balance at the end of the year was Rs. 25,184.

The receipts of the Steam Boiler Inspection Fund rose to Rs. 67,000. Expenditure totalled Rs. 47,332 and the closing balance at the end of the year was Rs. 56,000.

Road and Education Cesses.

235. In Lower Burma contributions to education and local public works are made by the District Cess Funds, already dealt with in paragraph 232. No special cesses for these purposes are levied in the Province.

Rangoon Municipality.

Municipal Revenues.

236. The gross income of the Rangoon Municipality for the year was Rs. 49·80 lakhs, and the ordinary income excluding debt and advance accounts was Rs. 40·65 lakhs. The increase of ordinary income over that of the previous year amounted to Rs. 3·66 lakhs. Municipal rates and taxes showed an advance of Rs. 1·46 lakhs due to revision of assessments and the normal growth of the town. Increase in fees and revenue from markets and slaughter-houses and also from pawnshop licenses account for more than a lakh of the remainder. The gross expenditure rose to Rs. 43·32 lakhs; and the ordinary expenditure to Rs. 36·58 lakhs, as compared with Rs. 40·86 lakhs and Rs. 34·71 lakhs in the previous year. Loan charges on account of Municipal loans rose from Rs. 9·17 lakhs to Rs. 9·81 lakhs. The acquisition of land for a new fire brigade station and the purchase of a motor steam fire engine account for an increased expenditure of over half a lakh under public safety. The water-supply cost Rs. ·75 lakh more than in the previous year, but there was a decrease of nearly a quarter of a lakh under drainage. A 4 per cent. loan of Rs. 5,13,500 was raised in November 1911, the average rate of accepted tenders being 98·36 per cent. At the end of the official year the Municipality was indebted to the extent of Rs. 191·34 lakhs of which Rs. 60·50 lakhs represent loans raised on account of reclamation works. The Reclamation Fund opened with a balance of Rs. 11·92 lakhs and after providing for loan charges amounting to Rs. 3·82 lakhs and an expenditure of Rs. 4·70 lakhs on new works closed with a balance of Rs. 8·62 lakhs. As remarked last year the continued development of reclamation work depends on the revival of the demand for land of which there is at present no sign.

237. Excluding Rangoon there are 45 Municipalities in the Province and of these all but Moulmein bank with Government. Exclusive of debt accounts

Other Municipalities.

CHAP. V.—REVENUE AND FINANCE.

amounting to Rs. 4·45 lakhs and of opening balances amounting to Rs. 9·72 lakhs the total income of the 45 Municipalities was Rs. 40·64 lakhs, an increase of 2·72 lakhs over the figures of 1910-11. The ordinary expenditure rose from Rs. 38·59 lakhs to Rs. 40·52 lakhs and the closing balance was Rs. 10·12 lakhs. Municipal rates and taxes produced Rs. 15·99 lakhs but the increase of Rs. 1·17 lakhs was mainly due to the recovery of arrears at Toungoo. Akyab and Syriam also both showed considerable increases owing to enhanced or new taxation. There was a fall in realizations under Special Acts, but revenue from other sources rose slightly to Rs. 17·57 lakhs. Grants and contributions from Government expanded from Rs. 5·07 lakhs to Rs. 6·32 lakhs. General Administration and collection charges rose slightly, as did expenditure on public safety, mainly owing to the purchase of a motor fire engine at Moulmein. Expenditure on conservancy fell from Rs. 8·39 lakhs to Rs. 7·44 lakhs, the previous year's figures having been swollen by the payment of Rs. 1·25 lakhs to the Public Works Department for a conservancy scheme at Kyaiklat still under construction. Hospitals cost Rs. 6·03 lakhs instead of Rs. 6·50 lakhs, and the expenditure on markets and slaughter-houses rose from Rs. 3·13 lakhs to Rs. 3·98 lakhs. Public Works were responsible for Rs 4·03 lakhs against Rs. 3·96 lakhs in 1910-11, and Public Instruction cost Rs. 1·62 lakhs. Interest charges increased from Rs 1·25 lakhs to Rs. 1·35 lakhs. Loans amounting to Rs. 73,000 were granted to four Municipalities during the year.

Other Funds.

238. There is one Trust Fund, that of the Official Assignee. There are four educational Endowment Funds—the Jardine, Maung Ohn Ghine, Renoung and Copleston Funds. These funds do not bank with Government and their accounts do not therefore appear in the Government books.

Paper Currency.

239. The average total or gross circulation of currency notes in 1911-12 was Rs. 413·40 lakhs, or Rs. 94·55 lakhs in excess of the previous year. At the end of April 1911 the gross circulation was Rs. 373 lakhs. It fell to the minimum of Rs. 329 lakhs in November and rose to the maximum of Rs. 580 lakhs in January 1912.

There is no reserve Treasury in Burma and the active or net circulation is estimated by excluding 10,000 rupee notes from the gross calculation. The average net circulation for the year was Rs. 355·60 lakhs, an increase of Rs. 79·62 lakhs over that of the previous year. For the last nine years with the exception of 1904-05 a progressive increase of circulation has occurred, a sure indication that the advantages of currency notes are being increasingly realised The use of notes as currency has extended enormously during the past year in the districts adjacent to Rangoon and Bassein, more particularly in the Pegu and Myaungmya Districts. The universalization of the 10, 50 and 100 rupee notes has increased the popularity of the note circulation, chiefly of the ten rupee denomination and extensive use is also made of notes in the districts in payment of the Land Revenue. The use of 10 rupee notes is steadily increasing, but has not yet equalled the circulation of 100 rupee notes which though decreasing still formed more than half of the total circulation at the end of the year. There was an increase in the issues of 29 per cent. in 10 rupee notes and 13 per cent. in 100 rupee notes over those of 1910-11. A decrease under 50 rupee notes is attributed to the colouring and design of the new pattern resembling those of the 10 rupee note. The net circulation reached its highest point on the 22nd February 1912 when there were 2,824,920 notes in circulation, the aggregate value being Rs. 592·99 lakhs.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

REFERENCES:—

Report on the Sanitary Administration of Burma for the year 1911.
Notes and Statistics on Hospitals and Dispensaries of Burma for the year 1911.
Report on the working of the Government Medical School, Rangoon, for the year 1911.
Report on the Lunatic Asylums in Burma for the triennium 1909-1911.
Notes and Statistics on Vaccination in Burma for the year 1911-12.
Statistics of British India, Part V.

Births and Deaths.

Area under registration and total population.

240. The area under registration remained unchanged during the year of report. The total population of the Province subject to registration of births and deaths was, at the Census of 1911, computed at 9,878,593, an increase of 1,334,840 over the figures obtained at the Census of 1901. Of this census population 6,391,845 (3,377,741 males and 3,014,104 females) persons were in Lower Burma, and 3,486,748 (1,676,661 males and 1,810,087 females) in Upper Burma.

Number of births and deaths.

241. The number of births in the area under registration was 322,456 in 1911 as against 307,941 in 1910, an increase of 14,515. The birth-rates *per mille* for the year are 32·64 for the whole Province, 31·44 for Lower Burma and 34·85 for Upper Burma. Any comparison of birth or death ratios for 1911 with those recorded for the previous years would be valueless, since the ratios in this report have been calculated on the Census population of 1911, while those in earlier reports were calculated on the Census figures of 1901. The birth-rate for the Province is 7·57 *per mille* above the death-rate, exceeding the latter in all but the Rangoon Town and Mandalay Districts. There were 105 males born to every 100 females. The total deaths in the registered area in 1911 amounted to 247,682, being an increase of 7,323 over the deaths for 1910. Four thousand one hundred and twenty of the excess deaths occurred in Upper Burma and 3,203 in Lower Burma. The Provincial death-rate for 1911 was 25·07, that for Lower Burma 23·99 and that for Upper Burma 27·07 *per mille* of population. The Provincial death-rate under one year of age, estimated on the number of recorded births in the areas under registration was 221·87 *per mille* against 233·24 in 1910, *i.e.*, 11·37 less. The urban infantile death-rate for the Province was 332·38 as against 316·32 in 1910.

No relation can be traced between the birth-rate and the price of food. The death-rate in the Upper Province increased more or less in correspondence with the increase in the price of rice, but it is impossible to attribute the increase to this cause alone on account of the presence of factors of greater importance in their effect on the death-rate. Thus, in Lower Burma the highest price was recorded in October, while the death-rate was low in that month but highest in July, when the price was much lower.

Causes of death

242. The cause of death was recorded as follows :—

	1911.	1910.
Cholera	4,191	2,011
Small-pox	6,004	1,817
Plague	6,060	7,741
Fevers	76,142	80,014
Dysentery and Diarrhœa	10,619	8,987
Respiratory diseases	7,590	6,913
Suicide	163	155
Wounding or accident	1,571	1,517
Snake bites and wild beasts	2,036	1,776
All other causes	133,306	129,428
Total ...	247,682	240,359

It will be observed that deaths from cholera in 1911 exceeded those of 1910 by 2,180. The increase in Lower Burma was 761 and in Upper Burma 1,419.

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

The death-rate from this cause was ·42. The small-pox epidemic was severe in 1911 and very disastrous, no less than 4,187 deaths being registered in excess of the total recorded for 1910. The outbreak was largely confined to Lower Burma, 5,643 of the 6,004 deaths occurring in that part of the Province.

There were 6,060 deaths recorded from plague in Burma during the year 1911, of which 3,906 occurred in Lower Burma and 2,154 in Upper Burma. In 1910, the corresponding figures were—Provincial total 7,741, Lower Burma 4,417 and Upper Burma 3,324. Of the decrease of 1,681 in the Provincial total 511 is to be credited to Lower Burma and 1,170 to Upper Burma. The death-rate from this disease was ·61 for the Province. The Pegu Division reported the highest plague mortality in 1911 (2,357). Eight hundred and nineteen deaths were reported from the Irrawaddy Division and 716 from Tenasserim. There were outbreaks in all the districts of the Pegu and Irrawaddy Divisions. In the Irrawaddy Division, the infection was mostly confined to the towns, though tending to attack smaller centres in the Myaungmya District. Out of 716 deaths in the Tenasserim Division, 606 were confined to towns. In Upper Burma the plague mortality was principally confined to the towns, the deaths in rural areas being only 282 against 1,462 recorded in 1910. The decrease was mainly in the Sagaing Division where both the Sagaing and Lower Chindwin Districts were almost free of plague.

The principal preventive measures carried out during the year were rat-destruction by "drives" and trapping, inoculation, and evacuation. The total number of inoculation operations performed was 58,054 and the number of rats destroyed 1,172,722.

The Divisional Plague Scheme came into force in the Pegu, Irrawaddy, Sagaing and Meiktila Divisions from the 1st April 1911, and continued in force for the whole of the financial year. The system was not accepted by the Tenasserim or Magwe Divisions with the exception of the Thayetmyo District.

The Plague epidemic was very mild in Mandalay Town during the year of report. There were only 116 deaths this year against 678 in the previous light plague season of 1909-10, and 840 in the season of 1907-08. The measures employed for the prevention of plague during the year were rat-destruction and house-improvement, with attention to general sanitary improvements.

The returns of deaths from "fevers" are of no value, since in rural areas nearly every death is returned under that heading. There is nothing in the death statistics to show the nature of the fevers to which the mortality is supposed to have been due. The only prophylactic measure generally accepted is the use of quinine.

Issues of quinine.

243. The manufacture of quinine tablets was carried out on a very large scale during the year 1911. Three thousand, eight hundred and forty-seven pounds and three ounces of quinine sulphate were used for the manufacture of quinine tablets in the Rangoon Central Jail; 3,762,854 five-grain tablets and 8,466,440 one-grain tablets were manufactured by Allen and Hanbury's rotary machine, which was imported from England in May 1911

Over 1,800,000 five-grain and 7,597,000 one-grain tablets were issued to Treasury and other Indenting Officers. Indents for supplies of the tablets for sale or free distribution were received from 38 towns and districts. The tablets have become popular wherever their use has been encouraged.

Emigration and Immigration.

244. The number of immigrants recorded at the ports of Akyab, Kyaukpyu, Rangoon, Moulmein, Tavoy and Mergui was 368,383 against 331,170 in 1910, an increase of 37,213 persons. The total of emigrants from the Province was 311,574, against 298,613 in 1910, an increase of 12,961, which leaves a balance of 24,252 persons remaining in the country in excess of the previous year's return. No less than 289,445 immigrants passed through Rangoon, an increase of 21,338 on 1910; 221,981 emigrants or 4,870 in excess of 1910, left Burma through this port.

No records of incoming or outgoing passengers were maintained at the port of Bassein during the year of report, or in the previous year.

Medical Relief.

Hospitals and Dispensaries.

245. Nine new institutions were opened and four closed during the year 1911. Thus the total number of hospitals and dispensaries was 264 at the end of the year. Of the 9 institutions opened 7 were Railway. Such of the New General Hospital buildings as had been taken in hand were finally completed and fully occupied during the year.

Attendance and treatment.

246. The total number of patients treated at the various hospitals and dispensaries in the Province increased from 1,550,716 in 1910 to 1,652,501 in 1911. The daily average attendance of women for outdoor treatment at the Civil Hospitals showed an appreciable increase from 1,294 in the previous year to 1,370 in the year of report. The increase in outdoor attendance was small. The Burmese population contributed nearly 54 per cent. of the total number of patients treated during the year.

The chief diseases for which relief was afforded, judged numerically, were :—(i) All other diseases of the digestive system (301,203); (ii) Malaria (208,968); (iii) Other diseases of the skin (195,902); (iv) Ulcers (165,024); (v) Injuries (General and Local) (114,074); (vi) All diseases of the respiratory system except Pneumonia and Tubercle of the lungs (113,881); and (vii) diseases of the eye (102,701). Six hundred and twenty-six cases of cholera and 1,459 of small-pox were treated in hospitals as against 238 and 1,175 respectively in 1910; Katha with 99 cases, Pyapôn 63, Rangoon Town 46, Ma-ubin 41, Mandalay 40 and Sagaing 31, were chiefly responsible for the increase in cholera. The large increase in small-pox cases treated is due to a severe outbreak in Rangoon with 869 cases; while Moulmein with 85, Akyab 80, Kyauksè 33, Mandalay 32 and Toungoo 30 also contributed towards the increase. The decrease by 8,501 in the number of malarial cases treated, though noteworthy, is probably accounted for by more care being given to diagnosis and classification. The increase in the number of operations from 41,581 to 44,746 is remarkable.

General.

247. Medical expenditure amounted in all to Rs. 14,56,023, an increase of Rs. 84,249 over the figures of the previous year. The increase has been general under all heads of expenditure except under Bazaar Medicines and Medical Officers' salaries. The additional staff sanctioned for the Rangoon General Hospital has contributed mainly towards the increased expenditure under nurses.

The cadre of the Indian Medical Service and the number of uncovenanted Medical Officers and Civil Assistant Surgeons in independent charge of civil stations remained the same as in the preceding year. The service of Civil Assistant Surgeons in the Province was reorganised. Five new appointments were added to the number of Sub-Assistant Surgeons. The cadre was still short by 16 at the end of the year. The proposed provincial scale of pay was sanctioned from the 1st October 1911.

Good work was done at the Rangoon General Hospital Laboratory. The work in the Rangoon General Hospital alone was sufficient to keep the Laboratory staff fully engaged. The careful study of a large number of *post mortem* examinations performed at the Laboratory resulted in the discovery of what may prove to be a new infectious disease. As far as present investigation goes this disease appears to be largely confined to morphia injectors.

The Rangoon General Hospital Laundry proved of the greatest convenience in maintaining a constant and adequate supply of clean linen.

The Nursing Staff in the General Hospital, Rangoon, was increased by 20 nurses and 2 English trained Sisters. Six midwives have been passed out of the Dufferin Hospital, Rangoon, under the Results-System Scheme and 11 remain

CHAP. VI.—VITAL STATISTICS AND MEDICAL SERVICES.

under training. The number of students in the Government Medical School, Rangoon, at the end of 1911 was 42 against 29 in the previous year. The difficulty in securing Burmese candidates with the prescribed educational qualifications is still felt.

In the absence of a Poor House and Infirmary in Rangoon several cases of native paupers in the last stage of starvation had to be admitted into the General Hospital.

Lunatic Asylums.

248. The number of inmates in the Rangoon and Minbu Asylums at the end of the year fell from 641 in 1910 to 619, attributable to an increased mortality (42 in 1910 to 72 in the year of report), a large number of patients being admitted in a moribund condition. The water-supply in the Rangoon Asylum was not quite satisfactory, but in view of the building of a new Asylum for Burma, it was finally decided not to incur any large expenditure on new works in the Asylum.

Sanitation.

Principal works expenditure.

249. The Committee appointed by Government in 1910 to draft a set of model building and other sanitary bye-laws, completed its work towards the end of 1911 and submitted the draft bye-laws to the Local Government for approval.

The Provincial Sanitary Board held no meeting during the year. Divisional Sanitary Boards have recently been substituted by the Local Government for the Provincial Sanitary Board.

Municipal Committees expended 38·83 per cent. of their income on sanitary works, Town Committees 25·85 per cent.; while the expenditure from District and District Cess Funds was only 4.19 per cent. The aggregate expenditure of both urban and rural authorities on Sanitary works was about 39½ lakhs, or 26·17 per cent. of a total income over 150 lakhs. Of this aggregate expenditure 7·64 was spent on water-supply; 3·67 on drainage; 8.95 on Conservancy; and 5·91 on other sanitary works.

Complete proposals for the water-supply of Pyinmana, Kyaiklat, Bassein, Yandoon, Kyaukpyu and Thayetmyo were prepared. The project for Pyinmana was returned for revision. The Thayetmyo and Kyaiklat schemes—the latter estimated to cost Rs. 63,854—received the sanction of Government. The Bassein reservoir was completed but the results have not fulfilled expectations. The Yandoon scheme, and a scheme for supplying Kyaukpyu with water by an infiltration gallery, were submitted for criticism and sanction. A tube well was sunk at Toungoo to a depth of 125 feet and four others at Nyaunglebin: all of them proved successful, and furnished potable water for the public supply.

The drainage scheme of the Moulmein-Shwedaungtada area, estimated to cost Rs. 71,630, and another for a section of Akyab Town, estimated to cost Rs. 19,778, received sanction. Survey operations connected with the Paungdè and Mergui drainage schemes were completed.

An estimate amounting to Rs. 1,91,078 for a new bazaar at Pegu received sanction during the year and the work will shortly be commenced.

Vaccination.

Number of operations.

250. The permanent establishment, as in the previous year, consisted of 268 Vaccinators and 49 Native Superintendents of Vaccination. Three Native Superintendents and 16 Vaccinators were either removed or dismissed from the service for corruption and falsification of returns, and in one instance for aiding and abetting inoculation, on which charge the Native Superintendent concerned was convicted and sentenced to 9 months' imprisonment. The total number of operations performed in districts, including towns, but excluding Dispensaries and Jails, was 507,475 which was 112,582 more than in the previous year. The totals of operations performed in Dispensaries and Jails were 9,917 and 26,439, respectively. The total number of successful

operations in which the results were known showed an increase of 99,414 on the record of the previous year. This general increase of vaccination work, which indicates increased efforts on the part of many of the Civil Surgeons and their vaccination staffs, was not shared in by the Hanthawaddy, Prome (as regards primary operations), Myaungmya, Myitkyina and Lower Chindwin Districts, and by the Northern Shan States, where vaccination is unpopular and conducted and supervised under special difficulties due to large areas and scattered population. The work done in the Pyapôn and Toungoo Districts, though showing an improvement over the last year's outturn, is excessively meagre in relation to the large populations concerned.

Amongst the districts which shared notably in the general increase of vaccination work in the Province are Ma-ubin and Magwe with an increase respectively of 6,282 and 7,102 successful operations.

Owing to severe outbreaks of small-pox, re-vaccination was performed on a large scale in the Prome and Rangoon Town Districts, which respectively returned an excess of 3,555 and 15,188 successful operations over the previous year. The percentage of successful operations in which the results were known was 96·61 for primary, and 72·77 for re-vaccination, against 95·50 and 67·81 respectively in 1910-11. Six districts returned a success rate in primary operations of over 99 per cent. and five districts between 98 and 99. The lowest percentage was returned by the Northern Arakan District which was only 86·66. The result of vaccination performed at dispensaries was a success rate of 97·05 in primary and 54·13 in operations for re-vaccination. The number of infants vaccinated in 47 Municipal Towns was 18,956, showing an excess of 885 over the number actually available for vaccination. This excess of infants actually operated on, over the number of survivors, is generally attributed to an influx of visitors to the town from rural areas bringing infants with them. It is far more probable in the majority of the instances that the excess is due to an error in registration of births.

The totals of operations verified by Civil Surgeons and Native Superintendents of Vaccination were 69,316 and 291,043 as compared with 45,166 and 213,746 in the previous year.

The amount of verification work performed by Native Superintendents of Vaccination increased considerably in all districts except Hanthawaddy, Henzada, Sagaing and Myitkyina.

Vaccine Depôt, Meiktila.

251. Glycerinated vaccine paste was prepared for 717,624 operations and Lanoline paste for 11,560. The issue of lymph, for 693,913 operations during the year against 613,444 in 1910-11, is the highest on record. Calves were obtained on the hire system instead of being purchased and resold, as in previous years. This system proved financially economical, both in first cost of the calves and in feeding, as well as in a saving due to decreased mortality. Three hundred and ninety calves were vaccinated during the year for the supply of lymph. An apparatus for providing Cold Storage on a small scale was recently purchased, and will shortly be installed at the Vaccine Depôt.

Two Native Superintendents of Vaccination and 34 apprentice vaccinators underwent training at the Depôt during the year.

The cost of the Vaccine Depôt, Meiktila, was Rs. 13,289 against Rs. 17,810 in the previous year. The reduction was mainly due to the substitution of the hire for the purchase of calves system.

General.

252. Three inoculators were prosecuted for carrying on their trade in the Pegu District, one of whom was sentenced to one month's imprisonment and the remaining two fined Rs. 50 each.

A proposal for the extension of the Act for the prohibition of inoculation to all districts in Lower Burma is under consideration.

The total expenditure on vaccination for the year was Rs. 2,00,603 against Rs. 1,93,278 in 1910-11.

The average cost of each successful operation was, for the Province, 7 annas 5 pies, against 9 annas 1 pie in the previous year.

CHAPTER VII.

INSTRUCTION.

REFERENCES:—

Fourth Quinquennial Report on Public Instruction in Burma for the years 1907-08 to 1911-12, Statistics of British India, Parts VI and VII

General System of Public Instruction

General organization.

253. Elementary education has long been endemic in Burma: it is indeed bound up with the religious traditions and practice of the country. A Buddhist monastery is to be found in every village of any importance and often there are several in one village. Each monastery is a school actually or potentially. Custom has always demanded that every Burmese Buddhist male shall pass some portion of his youth in a religious seminary. In such institutions the monks have always taught the arts of reading and writing and in some schools an indigenous system of elementary arithmetic. The teaching is not confined to pupils who for a shorter or longer time 'assume the robe.' The village children may attend as ordinary pupils, but their attendance is irregular and by no means obligatory. It cannot be denied that at the present time a large number of children receive no regular instruction even of an elementary kind. Elementary education however has never been restricted to the monastic schools. Before the advent of the British, 'lay' schools kept by respectable old men or women supplemented the monastic school system. The British Government has steadfastly endeavoured to graft on to the lay and monastic stems of indigenous education those Western educational methods which modern civilization demands. The first definite step in this direction was taken by Sir A. Phayre who in 1864-65 proposed a scheme the main features of which were—

(i) To use the Vernacular (Burmese) as the medium of instruction and thereby to diffuse Primary or Elementary education among the masses.

(ii) Under Elementary or Primary Instruction to include not merely Reading and Writing but also Elementary Arithmetic, Land Measuring, Geography, and eventually Astronomy and the outlines of Ancient History as known to Europe.

(iii) To utilize monastic and lay schools for this purpose.

(iv) In order to induce *pôngyis* to teach such subjects (*a*) to furnish them with books in Burmese, (*b*) to supply qualified Burmese teachers to superintend the studies occasionally.

(v) To appoint a Director with four Burmese teachers (for the above purpose) at Rs. 30 per mensem.

Since that time Government through the Educational Department, the foundation of which in its present shape was an outcome of Sir A. Phayre's schemes, has sought to adapt its method of vernacular education to the monastic system and to induce the monks to accept so much at least of Western knowledge and modern principles of education as is not incompatible with Buddhist doctrines and rules of life. At the same time Government has always striven to promote the efficiency of lay vernacular schools. The result at the present time is that although four-fifths of the monastic schools still remain aloof from the Departmental system the figures for attendance at public institutions (*i.e.*, those recognized by Government) exceed those for private schools. Since its organization the Education Department has taken cognizance of Anglo-Vernacular as well as of Vernacular education. The growth of Departmental control over English and higher education is no new thing From 1862 grants have been given for Anglo-Vernacular schools. The duties of the Director of Public Instruction first appointed in 1866 comprised not merely the fostering of vernacular education but the active supervision of English education. A few

Anglo-Vernacular schools are carried on apart from the Government system, but the large majority is wholly under the supervision of the Education Department. The severance of European from Anglo-Vernacular education is a comparatively recent feature dating from 1906 when a separate Code for European schools in Burma was sanctioned.

Education Department.

254. The Education Department is under the control of the Director of Public Instruction and consists of an Imperial, a Provincial and a Subordinate Service. Members of the Indian Educational Service are selected from graduates in Honours of British Universities; they are ordinarily appointed in England by the Secretary of State. This Service includes the Director of Public Instruction, six Inspectors of Schools, the Principal and five Professors in the Rangoon College, the Principal, Government High and Normal School, Rangoon, and the Principal of the Government High and Normal School, Moulmein. The Provincial Service includes one Assistant Director of Public Instruction, one Inspector of Schools, six Assistant Inspectors, the Head Master, Government High School, Rangoon, the Head Master, Government High School, Moulmein, the Head Master, Government High School, Prome, the Head Master and the Technical Instructor of the Government School of Engineering, Insein, the Editor, Vernacular School Text-Books, the Superintendent of the Reformatory School, Insein, and two Professors and one Lecturer at the Rangoon College. There are in addition three posts, which though sanctioned have not yet been filled for lack of funds, the posts of Inspectress in the Indian Educational Service, and of Assistant Inspectress and Assistant Inspector of Pâli in the Provincial Educational Service.

The Inspector and Assistant Inspectors (except the Assistant Inspector of European and Normal Schools) are natives of Burma while the other Provincial Officers are ordinarily Europeans or Anglo-Indians recruited in Burma. The Subordinate Service consists of two branches. One (the general branch, which is not graded) includes 481 appointments for Europeans, Anglo-Vernacular and Vernacular teachers on pay ranging between Rs. 400 and Rs. 15 per mensem. The other is graded and includes 58 Deputy Inspectors and 16 Sub-Inspectors. The Subordinate Service consists mainly of natives of Burma. In addition to the Education Department there is a body called the Educational Syndicate which advises on educational matters and conducts tests for Teachers in the theory of education and certain other examinations. Its members are nominated by the Local Government and include both officials and non-officials.

Educational posts under Government not included in the Indian, Provincial or Subordinate Educational Service are the Headmastership of the Government European School, Maymyo, and the Headmastership of the School for the sons of Shan Chiefs at Taunggyi, Southern Shan States. Both these appointments are held by Europeans, graduates respectively of Cambridge and Oxford.

Government control.

255. The sphere of direct Government control has been considerably extended. Government institutions now include—

1 Arts College.
1 Law School.
1 Reformatory School.
1 School of Engineering.
1 Apprentice School.
1 High School for Europeans.
1 High School for the sons of Shan Chiefs.
5 Normal Schools.
8 Anglo-Vernacular High Schools.
18 Anglo-Vernacular Middle Schools.
1 Anglo-Vernacular Primary School.
1 Vernacular High School.
28 Vernacular Middle Schools.
7 Vernacular Primary Schools.

CHAP. VII.—INSTRUCTION.

The teaching staff of the Education Department comprises the professors and lecturers at the Government College, Rangoon, and masters and mistresses in Government schools of all kinds. Two Anglo-Vernacular schools only are under Principals in the Indian Educational Service. The Itinerant Teachers have been abolished, the system as a whole having been found unsatisfactory. Pupil teachers are still maintained in Vernacular schools but are not numerous.

Of the Government Anglo-Vernacular schools ten were formerly maintained by Municipalities with assistance from Provincial Funds but are now wholly maintained by Government and controlled by the Education Department. Seven Municipalities continue to maintain Anglo-Vernacular schools, most of which however it is proposed to transfer to Government when funds permit. The Education Department also manages fifteen Vernacular schools maintained by the District Cess Funds in Lower Burma. But by far the larger number of schools is still conducted by private agency (corporate or individual) with help from Government. Through the Education Department Government aids, inspects and supervises all schools willing to accept the conditions on which its assistance is granted. In Lower Burma Municipalities and Town Committees except Moulmein, have the general control of educational affairs within their jurisdiction, subject to the regulations of the Burma Education Code. In Upper Burma (except in Mandalay) the control of Municipal and town schools rests directly with the Education Department. High Schools affiliated to the Calcutta University are looked after by 'Governing Bodies' the members of which in the case of Government schools are appointed by the Director of Public Instruction.

Schools and Colleges.

256. Burma has no University of its own. There are two colleges affiliated to the Calcutta University. Pupils in Anglo-Vernacular High Schools are taught up to the Matriculation of the Calcutta University or the High School Final standard of the Education Department; those in European High Schools up to the European High School examination held by the Department. In European and Anglo-Vernacular Middle Schools pupils prepare for the Seventh Standard examination held by the Department. In Vernacular High Schools pupils prepare for the Ninth and in Vernacular Middle Schools for the Seventh Standard examinations both held by the Department.

The total number of schools recognized by the Department is 6,267. Of these 28 are European, 135 Anglo-Vernacular, and 6,104 Vernacular. High Schools number 47, Middle Schools 904; the rest are Upper and Lower Primary Schools. Among Vernacular schools aided by the Department are 2,470 monastic schools the large majority of which are Primary; six monastic schools however reach the High stage. Grants on such schools are usually paid to the *Kappiyadakas* or lay brothers of the monastery: the monks often employ lay assistant teachers who receive salary grants. Outside the schools recognized by the Department are many private schools neither aided nor inspected. Without a special staff to undertake the necessary enquiries, the Department can only offer a rough estimate of the total of private schools. This may be put in round figures at 16,700, a few schools being Anglo-Vernacular and the rest Vernacular. Most of the unrecognized Vernacular schools are small monastic schools averaging 7 or 8 pupils apiece. In such schools the *pôngyis* teach reading and writing and sometimes a little indigenous arithmetic. Attendance is extremely irregular and in any case covers but a small portion of the year. Girls are not received in these schools. The *pôngyis* accept no monetary fees but expect offerings in kind. The training of teachers is provided for in twelve Normal schools.

Education Codes.

257. The rules of Government in the Education Department are contained in the Burma Education Code and the Code for European Schools in Burma. The latter is based on the Code for European Schools in India but includes modifications to suit the special circumstances of Burma. Anglo-Vernacular and Vernacular Schools are administered under the Burma Education Code; European Schools only under the Code for European Schools.

CHAP. VII.—A. INSTRUCTION. Administration.

258. The authorities responsible with the officers of the Education Department for the educational administration of the Province are :—

(*a*) Officers of the Civil Administration from Commissioners to Myoôks.

(*b*) Municipal and Town Committees.

The annual estimates of educational expenditure to be borne by School Funds maintained in Lower Burma (except Moulmein) and in Mandalay are prepared by the Inspector of Schools in consultation with the local authorities. The Inspector drafts and submits them for the approval of the Committee of the Municipality concerned, the Director of Public Instruction and the Commissioner of the Division. In Burma, Municipalities maintain Anglo-Vernacular schools only : grants from Municipal funds are given to Vernacular schools. Anglo-Vernacular schools maintained by Municipalities now number seven only as against 17 in 1907-08. The difference is due to the transfer of ten Anglo-Vernacular schools from Municipalities to Government. The schools transferred are controlled by the Education Department and maintained from Provincial Funds. In Lower Burma grants to aided Vernacular schools outside Municipal areas are paid from District Cess Funds : in Upper Burma such schools receive aid from Provincial Funds. Aided Anglo-Vernacular and Vernacular schools in Municipal areas in Lower Burma (and Mandalay) receive grants from or through Municipal Funds : in Upper Burma they receive aid from Provincial Funds. European Schools are aided entirely from Provincial Funds.

Contributions towards educational purposes are made annually from District Cess Funds in Lower Burma. Such contributions in the case of any one district should ordinarily not exceed 20 per cent. nor fall below 15 per cent. of the annual income of the District Cess Fund. The allotments within these limits are expended upon the establishment and maintenance of District Vernacular schools, grants-in-aid to public schools under private management and contributions for educational purposes to Municipalities within the district area in accordance with the rules laid down in the Burma Education Code. The annual estimates of Educational expenditure under a District Cess Fund are prepared by the Inspector of Schools who drafts and submits them for the approval of the Deputy Commissioner, and the Director of Public Instruction forwards them if approved to the Commissioner of the Division for final sanction.

All educational expenditure not coming within the scope of Municipal or District Cess Funds is met from Provincial Funds, which are administered by the Director of Public Instruction who frames the annual Budget Estimate for the whole Province after reference to the Inspectors of Schools.

Inspection.

259. There are six Inspection circles, Mandalay, Meiktila, Pegu, Tenasserim, Irrawaddy, and Arakan, under six Inspectors. Another Inspector is in charge of European and Normal Schools. Under them are six Assistant Inspectors, 58 Deputy Inspectors and 16 Sub-Inspectors. The creation of a separate circle for Arakan was sanctioned with effect from November 1912.

Distribution of work.

260. For the special supervision of Vernacular Primary Education, the circles of Inspection are divided into sub-circles, each corresponding with a Civil district and placed under a Deputy Inspector of Schools. The sub-circles of Prome, Pegu, Henzada, Bassein, Sagaing, Shwebo and Pakôkku, owing to their size or population, have each two Deputy Inspectors of Schools, while the districts of Hanthawaddy and Insein have three Deputy Inspectors. There are also a Mahomedan Deputy Inspector, a Tamil Deputy Inspector and nine Karen Deputy Inspectors. All the Inspectors except the one in charge of the Mandalay Circle share in the Anglo-Vernacular work of Rangoon Town.

Classification of institutions.

261. Educational Institutions are classified as Colleges or Schools, public or private. A public institution is one (*a*) in which the courses conform to standards prescribed by the Local Government or by the Calcutta University ; and (*b*) which is either managed or inspected by the Education Department or presents pupils at the public examinations held by the Education Department or by the Calcutta University. A private institution is one which does not come within the

CHAP. VII.—INSTRUCTION.

above definitions. A public institution under the management of a private person or association is classed as a public institution under private management.

Colleges.

262. Colleges prepare pupils who have passed the Matriculation or the Anglo-Vernacular High School Final or the European High School examination, for the I.A. and B.A. courses of an Indian University. The two Colleges in Burma prepare pupils for the Calcutta University. The Government College is affiliated up to the B.A. in Honours in English, Pâli and Mathematics and in other subjects up to the ordinary B.A. and to the I.Sc. in Physics. The Baptist College is affiliated up to the ordinary B.A. in English, Pâli, History and Logic. Both Colleges are situated in Rangoon. The Government College is supported from Provincial Funds and from fees. The Baptist College is supported by Government aid, fees, and contributions from the American Baptist Mission.

Classification of Schools.

263. Schools are classified as Secondary or Primary according to the stage of instruction reached. Secondary schools may be either 'Middle' or 'High'. A High School ordinarily includes Primary and Middle Departments as well as a High Department: a Middle School ordinarily includes not only a Middle but also a Primary Department. Secondary and Primary Schools may be European, Anglo-Vernacular or Vernacular: European and Anglo-Vernacular schools are sometimes classed together as 'English' schools.

Classification of Vernacular Schools.

264. Vernacular schools recognized by the Education Department are classified as 'A' or 'B' schools. 'A' schools conform to the vernacular standards and courses prescribed by the Department. Managers of 'B' schools are at liberty to arrange their own courses subject to the general supervision of the Department. Vernacular schools not recognized by the Education Department are usually schools conducted by natives of India or Burma on purely indigenous lines in accordance with the traditions of the country. Vernacular schools, whether recognized, or unrecognized, may be monastic or lay schools according as they are managed by *pôngyis* or laymen. At lay vernacular schools girls or boys or both are received.

Special Schools.

265. Special schools are of six kinds:—Normal, Surveying, Engineering, Medical, Industrial, Veterinary.

Normal schools are institutions in which candidates for teacherships are trained: they are either Government or Aided. Survey schools are supported by Government and are under the supervision of the Commissioner of Settlements and Land Records. In them candidates for surveyorships in the Land Records Department, as well as for posts under other authorities, receive training. Survey schools are maintained from Provincial Funds. There is a Government School of Engineering at Insein maintained from Provincial Funds for the purpose of (*a*) training candidates in the Upper and Lower Subordinate branches of the Public Works Department, (*b*) training Draughtsmen, (*c*) training as Engineers and Mechanicians persons who do not seek appointment in the Public Works Department.

The courses in the Engineering School were last revised in 1910. The school at present comprises a Technical High School course which extends over three years, an Engineering course which extends over two years, a Draughtsman's course which extends over one year, and Preliminary classes, the courses in which extend over one year and are intended for students who wish to be admitted to the Engineering course or the Draughtsman's course without going through the Technical High School course. The school is under the control of the Director of Public Instruction who is advised by a Visiting Committee. The Government Medical School in Rangoon is under the control of the Inspector-General of Civil Hospitals, Burma. The Veterinary School is under the Superintendent, Civil Veterinary Department, Burma.

Reformatory School.

266. The Government Reformatory School at Insein is at present under the control of a Committee. The Director of Public Instruction is Inspector-General of the institution. The literary instruction given is vernacular and ranges

up to the VIth Standard. Technical instruction is given in seven standards. The rules governing the school have lately been revised with a view to the development of the educational objects of the institution. The sanction of the Government to the revised rules is awaited. Apart from the Reformatory, there are three other schools in which industrial training is given. These are of a non-penal character and are under aided management. The Burma Railways Company entertains thirty-five European or Anglo-Indian and thirty-five native apprentices in its workshops. For these apprentices Government supplies two teachers who give instruction in 'Steam and the Steam Engine,' and 'Mensuration and Drawing'. The period of apprenticeship is five years.

Manual training.

267. Manual Training or Slöjd is taught in all the Government Normal Schools and in the Aided Normal Schools attached to the St. John's High School, Rangoon, the Baptist High School, Rangoon, and the Roman Catholic Mission School, Thônzè. The Roman Catholic Mission Normal School at Bassein has taken up the subject from May 1912. There are also twelve Vernacular Boys' Schools (four Government, three District Cess and five Aided), teaching hand-and-eye training. Government has provided these schools with both teachers and apparatus.

Standards of instruction.

268. There are at present ten standards of instruction, from the Infants to the Ninth for Vernacular and from the First to the Tenth for Anglo-Vernacular Schools. In European Schools there are eleven standards, from the Infants to the Tenth. In Vernacular Schools the first three standards constitute the Lower Primary stage, the next two the Upper Primary, the next three the Middle, and the last two the High stage. In Anglo-Vernacular Schools the Primary Department includes Standards I—IV, the Middle, Standards V—VII, and the High, Standards VIII—X. The same obtains in European Schools except that in the Primary Department there is an Infant standard in addition. The Tenth Standard Anglo-Vernacular and European is the Matriculation or High School Final Class. After passing the Matriculation a student may enter an Arts College. In the case of students who pass the High School Final the special permission of the Syndicate of the Calcutta University is necessary for their admission to such an institution.

Vernacular and Anglo-Vernacular Schools.

269. Vernacular Schools are those in which English is not taught, Anglo-Vernacular those in which instruction in English forms part of the regular course.

Teaching of English.

270. In the Anglo-Vernacular curriculum in force under the Burma Education Code English is begun from the lowest standard (Standard I). From 1908 up to 1912 reading and writing in English were begun in Standard IV, the methods of teaching the language in Standards I, II, III being oral. Since April 1912 English reading and writing may be taught in Standard III, the conversational and oral methods previously prescribed being however retained. In the Middle stage teachers begin to use English as the medium of instruction in certain subjects. In the High stage so far as possible English becomes the medium of instruction in all subjects. In all stages in Anglo-Vernacular Schools pupils read and study their own vernacular.

Management.

271. An institution is considered to be under public management when it is under the direct management of Government or of officers or Committees acting on behalf of Government or of Local Committees constituted by law. The staffs of Government institutions are appointed by Government or by the Department concerned acting under the sanction of Government. The pay of the staffs is borne by Government and teachers serving on the staffs are eligible for pension. Schools maintained by Municipalities receive aid from Provincial Funds in the form of salary grants. Except in schools the entire management of which has been handed over to the Education Department, teachers in Municipal schools are appointed by the Municipal authorities subject to certain conditions. In District Cess Vernacular schools the management rests with the Education Department which appoints all the teachers. In schools under private management

CHAP. VII.—INSTRUCTION.

managers appoint their own staffs subject to the approval of the Department. All recognized schools under private management are aided.

System of aid.

272. There are two systems of aid, one under the grant-in-aid rules for Anglo-Vernacular and European Schools and one under the grant-in-aid rules for Vernacular schools. Before a school is eligible for grants it has to be registered under the rules for registration. Educational grants-in-aid funds are administered under the control of the Department of Public Instruction and the grants payable are subject to Budget limits. The grants-in-aid obtainable are as follows :—

(i) "Ordinary grants" calculated on the difference between the income and expenditure of an institution.

(ii) "Boarding grants" for pupils supplied with board and lodging on the school premises.

(iii) "Special grants" to supplement private expenditure on buildings, land, school furniture and equipment.

(iv) "Salary grants" to certificated teachers.

(v) "Fixed grants" to institutions of recognized efficiency and permanent character.

(vi) "Normal School grants."

(vii) "Results and other grants" for technical subjects in—

(*a*) Ordinary Schools.

(*b*) Technical Schools or Departments.

(viii) "Extra grants."

In no case is the total allowed to any institution under the grants specified against (i), (iv) and (vii) permitted to exceed the sum contributed from other sources (such as fees, endowments, or grants from Missionary bodies) to the direct expenditure of the institution in the previous year.

Vernacular Schools.

273. Vernacular schools are maintained by Burmans, Karens, Tamils, Telugus, Chins, Kachins, Mahomedans, Talaings, Taungthus, Manipurians, Palaungs, Danus, Shans, Inthas, and Chinese, and by Missionary Societies. A school manager can apply at any time to the Deputy Inspector to have a school registered under class "A" provided that at least four of the pupils are able to read and write their vernacular as judged by Standard II. The school will be retained on the Register only if it passes pupils by recognized standards within a year of registration. In the case of "B" schools the following conditions are imposed :—

(i) That they serve any purpose of useful secular education and give instruction in Reading, Writing and Arithmetic.

(ii) That they keep an Attendance Register.

(iii) That they are at all times open to Government inspection.

Vernacular schools of Class "A" at present receive aid in the form of—

(i) Results grants.
(ii) Grants for buildings.
(iii) Grants for equipment and books.
(iv) Salary grants.
(v) Grants for pupil teachers.
(vi) Boarding grants.
(vii) Grants for optional and technical subjects.

In order to be eligible for a grant-in-aid schools of class "A" must ordinarily be in session all the year round, taking the recognized holidays and vacations and must maintain an average daily attendance of not less than 12 pupils.

Schools of Class "B" are eligible for grants as follows :—

(i) A grant of Rs. 2 a year for each pupil in average daily attendance up to a maximum of Rs. 150.

(ii) A grant of Rs. 2 for each month in the year for which the attendance is certified by the Inspecting officer to be properly recorded.

(iii) Once in three years for an equipment grant of Rs. 75.

Training Institutions.

274. There are now 5 Government and 7 Aided Normal Schools of which 8 are for men and 4 for women. In the Normal schools students receive further instruction in ordinary school subjects as well as in the theory of education, and some practical training. Courses are either Anglo-Vernacular or Vernacular, leading up to 3 grades of Certificate, Primary, Middle and High. Certificates are awarded by the Director of Public Instruction on examinations held by (*a*) the Education Department, (*b*) the Educational Syndicate. The latter body holds only the examinations in the theory of Education. In order to appear for the Syndicate's tests Anglo-Vernacular candidates ordinarily have to pass through a Normal School. Vernacular teachers and managers who have served satisfactorily for two years in a recognized school may appear without passing through a Normal School. The duration of the courses is from 2 to 4 years according to the certificate sought, the minimum qualification for admission being for an Anglo-Vernacular candidate Standard VII (Anglo-Vernacular) and for a Vernacular candidate Standard VI (Vernacular).

Education of backward tribes.

275. The education of backward tribes is attended to by the Education Department. Double grants under the ordinary scale laid down for Vernacular schools are payable upon pupils of specific backward races in such localities as the Director of Public Instruction may determine.

Extra grants are payable on Anglo-Vernacular pupils of specific backward races in such localities as the Local Government may from time to time determine.

Aid to Europeans and Anglo-Indians.

276. Special forms of aid are open to the children of Europeans and Anglo-Indians in Burma :—

(*a*) A fixed number of monthly Orphan stipends, tenable for three years for the education of orphans at approved institutions.

(*b*) A fixed number of monthly Boarder stipends, tenable for three years for the maintenance of orphans or poor children at approved boarding schools.

(*c*) A fixed number of Apprentice stipends tenable for three years for the training of poor boys at approved workshops.

Stipends are awarded annually by Boards at Rangoon, Moulmein, Akyab and Mandalay. No stipends are paid except on account of children who are actually under instruction. The stipends are tenable subject to good conduct and progress.

(*d*) Extra grants payable upon European and Anglo-Indian pupils attending European schools ; these grants are in addition to ' fixed ' or ' ordinary ' grants.

(*e*) Scholarships reserved for Europeans and Anglo-Indians under the Code for European schools and at the Government Engineering School, Insein.

Examination in Pâli.

277. An examination in Pâli is held annually in Mandalay, Rangoon, Moulmein, Akyab, Bassein and Prome to which Monks, Laymen, and Nuns are admitted. This is known as the *Patamabyan*. It is divided into three grades : *Patamangè*, *Patamalat* and *Patamagyi*. The candidate who heads the list in the last grade is known as " *The Patamagyaw* " of the year. His certificate is specially presented by His Honour the Lieutenant-Governor. The Patamagyaw is exempted for life from *thathameda* or Capitation Tax as the case may be. If he is a *pôngyi* his parents are exempted. Rewards and certificates are given for passes in each grade. A candidate whose rules of life forbid the acceptance of money receives a present of robes. The examination is very popular and has done much to enlist the sympathies of the monks.

Examinations.

278. Examinations of pupils in colleges or schools are of two kinds (*a*) University and (*b*) Provincial. The former consist of the Matriculation, I.A., I.Sc., and B.A. examinations of the Calcutta University. The latter are conducted by the Education Department. They comprise in Anglo-Vernacular schools the examination of Standards IV and VII, the High School Final examination and the Middle English scholarship test : in European schools the Seventh Standard test,

CHAP. VII.—INSTRUCTION.

the Middle Scholarship examination, the High School and Scholarship examination : in Vernacular schools, the examination of all standards, and primary scholarship tests. In Normal Schools examinations in the literary courses, and practical tests are held by the Department. At the Engineering School the examinations are held partly by the staff and partly by examiners appointed by the Director of Public Instruction. The Education Department also holds special tests for Drawing Teachers and Pupil Teachers and in Pâli and certain technical subjects.

The Educational Syndicate with the assistance of the Education Department conducts examinations in the theory of education. It also holds examinations in Languages and in Law (for advocates), and for certain minor Government appointments (*i.e.* for myoôks, *thugyis*).

Scholarships and Prizes.

279. Government scholarships comprise 33 University Scholarships, of which 8 are for intending teachers, 38 Middle English Scholarships tenable in Anglo-Vernacular High Schools, and 62 Vernacular Primary Scholarships tenable in Vernacular Middle Schools, besides 40 Scholarships reserved for Europeans and Anglo-Indians under the Code for European Schools. The above are awarded on ordinary school or college courses. In addition there is one Medical Scholarship for men, awarded annually, and tenable at the Medical College, Calcutta, besides three for women, tenable at the same institution : 19 Scholarships are attached to the Government Engineering School, and there is one Scholarship for pupils electing to attend the Engineering School at Sibpur.

Certain other scholarships are awarded by the Educational Syndicate, *viz.*, the Bigandet Medical Scholarship, the St. Barbe Scholarship (for women wishing to become midwives or sick-nurses), and the Gilbert Scholarship (for an apprentice in a technical school or workshop). The late Maung Ohn Ghine founded a special scholarship for Buddhists at the Engineering School, Insein.

Special prizes include the Bigandet Gold Medal, a medal given by Maung Ohn Ghine, and awards of Books known respectively as the Jardine, Coplestone, the Governor of Renaung and the Garnet Man prizes. The last mentioned is given for English History, the Bigandet Gold Medal for distinction at a University examination or in literary or scientific work, the Maung Ohn Ghine medal for success at the Engineering School. The others are for pupils who distinguish themselves in school or college examinations.

Text-book Committee.

280. The Text-Book Committee is a standing body consisting of the Director of Public Instruction as *ex-officio* President and of a Committee of not more than twenty members official and non-official, appointed by the Local Government. The Committee is divided into two Sub-Committees dealing with Vernacular and English books respectively. The duty of the Committee is to choose text-books for adoption in Anglo-Vernacular or Vernacular Schools and to submit them for the orders of the Director of Public Instruction. Books approved are included in the Departmental list of text-books authorized for use in schools. The Committee has no concern with the text-books of schools under the Code of Regulations for European schools, unless such books are specially referred to the Committee for opinion by the Director. As part of the Education Department's staff, an Editor and Sub-Editor of Text-Books are maintained, their duty being to prepare works for use in schools and to make any necessary translations.

Education.

Educational measures.

281. Pending the consideration of the project for the establishment of a University in Burma the scheme for rebuilding the Government College, Rangoon, was held in abeyance. Proposals for the extension of Anglo-Vernacular education were submitted and in accordance therewith the establishment of one school supported from the District Cess Funds was sanctioned; other schools await sanction. The revision of Normal school courses was under consideration. Regulations concerning physical training were issued, and a hand-book based on the syllabus of the Board of Education will shortly be

published in English and Burmese. The revision of the vernacular readers was practically completed during the year. Other matters dealt with were the courses and grants for needle-work in Anglo-Vernacular and Vernacular Schools, the encouragement of shorthand and typewriting, the establishment of a local centre for the commercial examinations conducted by the Midland Counties Union of Educational Institutions, England, and the preparation of rules for the medical inspection of public schools. Proposals were made for the revision of the system of grant for Anglo-Vernacular and European Schools, but the Educational Syndicate reported in favour of retaining the fixed grant system. One new appointment in the Indian Educational Service was sanctioned, namely, the Inspector of Schools for Arakan Circle, but on the other hand the post of Assistant Director of Public Instruction was transferred to the Provincial Educational Service. Hence the number of appointments in the Indian Educational Service was 15, the same as last year, but the Provincial Educational Service has one appointment more. The scope of the Subordinate Educational Service has now been extended to include appointments down to Rs. 15 a month, so that it would be useless to compare this year with previous years.

Number of schools and scholars and expenditure.

282. In the year of report the number of educational institutions of all kinds was 23,211 and the attendance 445,255 of whom 79,416 were girls, against 429,992 of whom 74,770 were girls, in the previous year. The number of institutions increased by ·7 per cent. and the attendance by 3·5 per cent. Six thousand five hundred and thirty-six institutions with 270,310 pupils were public, and 16,675 with 174,945 pupils were private. The total expenditure on education was Rs. 47,36,641 as compared with Rs. 43,62,581 in 1910-11. Provincial funds supplied Rs. 18,98,061, school fees Rs. 15,08,753 and local funds and private sources Rs. 9,62,278 towards the total expenditure.

Primary education.

283. The term *primary school* in Burma includes European, Anglo-Vernacular and Vernacular Schools which teach up to the fourth standard and, for certain purposes, the primary departments of secondary schools. Public primary institutions have decreased in number from 5,448 to 5,316, the divisions chiefly affected being Sagaing and Tenasserim, but the attendance in such schools has increased from 177,668 to 181,406. The decrease is attributed, as last year, chiefly to financial conditions. The expenditure on primary education for boys including the cost of primary departments of secondary schools was Rs. 16,08,283 against Rs. 15,44,058 in 1910-11. Provincial funds contributed Rs. 3,74,669, District Cess and Municipal funds Rs. 3,25,440 and Rs. 1,63,594 respectively, while Rs. 7,44,580 were derived from fees and other sources. The total cost of primary education for boys and girls including the expenditure on the primary departments of secondary schools was about 18¾ lakhs.

Secondary education.

284. Schools with a standard above the fourth are called secondary. They may be European, Anglo-Vernacular or Vernacular. European schools are dealt with below in paragraph 288 and girls' schools in paragraph 290. The number of Anglo-Vernacular secondary boys' schools rose in the year of report from 100 to 104 and the attendance from 20,666 to 20,722. These figures include the primary departments of the schools. The increased attendance occurred as last year in the high and middle standards, and there was again a slight decrease in the primary stage. The decrease in this department is due to the restriction of English in standards I, II and III to oral methods. Of the scholars attending Anglo-Vernacular secondary schools 4·4 per cent. were in the high stage, 34·5 per cent. in the middle, 40·3 per cent. in the upper primary and 20·9 per cent. in the lower primary. Of the 104 schools, 21 are high and 83 middle.

Vernacular secondary schools increased in number from 684 with 48,049 pupils to 756 with 54,795 pupils. Only 9 are high schools. Of the pupils attending vernacular secondary schools 28 were in high standards, 5,977 in middle, 12,095 in upper primary and 36,695 in lower primary.

CHAP. VII.—INSTRUCTION.

The results of examination in Secondary Schools were as follows :—

Examination.	Number presented.	Number passed.
Anglo-Vernacular High School Final	104	47
Calcutta University Matriculation	164	134
Anglo-Vernacular Seventh Standard	1,704	802
Vernacular Ninth Standard	57	26
Vernacular Seventh Standard	1,392	314

The expenditure on secondary education rose from Rs. 18,29,652 to Rs. 19,97,383 and of this amount Rs. 6,00,430 came from Provincial funds, Rs. 8,34,412 from fees and the remainder from Municipal and District Cess funds and from other sources.

Collegiate education.

285. Collegiate education continued to expand, especially at the Government College, where the average monthly number on the rolls rose from 263 to 293. In the Baptist College the average number was 41 against 44 last year. A certain number of students from the Government Normal School also attended the lectures at the Government College, and there is a law class of 10 students. Most of the collegiate students are Burman Buddhists, and the classical language usually taken is Pâli. The other subjects are English, Mathematics, Physics and Chemistry, Logic and Philosophy. The number of successful candidates for the I.A. and B.A. examinations of the Calcutta University increases yearly. This year 73 passed the I.A. against 56 in the previous year, and 21 against 13 passed the examination for the degree of B.A. In the I.A. examination the percentage of successful candidates was 48·7, in the B.A. 63·6. In the latter examination one obtained first class honours in English and six second class honours in English, Political Economy and Political Philosophy and Mathematics. In addition to the students taking the ordinary collegiate course there are 10 Burma students in the Medical College, Calcutta ; 32 are at the Royapuram Medical School, Madras, and 42, of whom 33 receive Government stipends, are at the Rangoon Medical School. The expenditure on Collegiate education increased from Rs. 1,15,459 to Rs. 1,31,695. Of this amount Provincial revenues contributed Rs. 78,325 and the remainder came from fees and other sources.

Technical education.

286. The Government School of Engineering still fails to attract suitable students in sufficient numbers. The causes of its unpopularity have been investigated, and reforms are under consideration. The attendance has again fallen from 45 to 35 ; most of the students are Indians.

The number of pupils in the Insein Reformatory and other industrial schools fell from 371 to 353. There is no change of importance in the subjects taught at such schools. In schools for general education, however, efforts have been made to encourage manual instruction and school gardening, and teachers of these branches of education have been appointed both in Vernacular and Anglo-Vernacular Schools. This is the main outcome of the conference on technical education held in November 1909.

Training schools.

287. There are 12 Normal schools as last year, 5 under Government and 7 aided. Of the Government schools two have both Anglo-Vernacular and Vernacular departments ; one is Anglo-Vernacular only and two are Vernacular only. The aided Normal schools are all under missionary control. Three (Vernacular) are for men, and four for women ; of the latter two are Anglo-Vernacular, one is Vernacular and one is both Anglo-Vernacular and Vernacular. There are no Normal schools for European teachers. The attendance in all Normal schools, taken together was 456 against 375 in 1910-11, 287 were men and 169 women.

In the training school examination for masters 123 out of 168 passed, 20 in the higher grade; in that for mistresses 44 passed out of 69. The number of trained or certificated teachers employed in the Province is now 2,520, of whom 1,369 have Vernacular qualification, 976 Anglo-Vernacular and 175 European. The expenditure on Normal schools was Rs. 1,79,635 against Rs. 1,60,471 in the previous year. Provincial funds contributed Rs. 1,64,621 of this expenditure.

European schools.

288. There were 29 schools for Europeans and Anglo-Indians with 4,039 pupils, among whom however were 486 natives, against 3,947 pupils, of whom 479 were natives, in 1910-11; the number of schools remained the same. Boys numbered 2,072 and girls 1,967. In Arts Colleges there were 52 against 47 in the previous year; in Normal schools the figures increased from 28 to 45. One pupil was successful in the Matriculation examination, and 24 in the High School Final Examination for Europeans; 17 passed the I. A. and 4 the B. A. examination. The total expenditure, exclusive of boarding fees, was Rs. 4,18,496, or about Rs. 29,000 more than in 1910-11. Of this about 2 lakhs was met by Government.

Education of Mahomedans and special classes.

289. The total number of Mahomedans under instruction decreased from 14,729 to 14,553, and the number in attendance at public schools also showed a slight decrease; there were 9,626 pupils in such schools, against 9,637 in the previous year. In private schools attendance also decreased from 5,092 to 4,927. Fifteen students attended the Colleges, of whom 3 passed the I. A. and 2 the B. A. examination. The number of Mahomedan girls under instruction in public institutions rose from 1,729 to 1,775 but fell in private schools from 1,245 to 1,229. The attendance in public institutions for other special classes decreased by 1,098 pupils, the decrease being chiefly among the Talaings and Taungthus. In point of numbers the most important special class is the Karen; most of the school-going Karens are Christians.

Female education.

290. The rapid increase in the number of girls under instruction in public institutions is especially noticeable. There were 75,909 against 71,032 in 1910-11. In addition 3,507 girls attended private schools. Secondary girls' schools numbered 82 against 83 in the previous year; 11 were high and 71 middle. A large proportion, namely 75·53 per cent. attend public boys' schools. In 1910-11 the percentage was 75·35. The distribution of girls over the different stages of instruction was College 22, high school 2,135, middle 17,400, upper primary 38,016 and lower primary 17,838. The remaining 498 girls belonged to training and other special schools. The expenditure on Vernacular secondary and primary schools for girls was Rs. 1,30,451; on English (*i.e.*, European and Anglo-Vernacular) schools for girls Rs. 3,64,068; and on training and other special schools for girls Rs. 30,942. Of the total direct expenditure from public funds 12·3 per cent. was devoted to girls' schools. The percentage in 1910-11 was 12·4.

Insein Reformatory School.

291. The number of boys in the Reformatory School was 82 as compared with 105 in 1910-11; 52 were Buddhists, 12 Hindus, 12 Mahomedans and 6 of other races. At the annual examinations 83 out of 87 passed in the literary subjects, and 51 out of 55 in the technical courses, which included carpentry, tinsmith's work, cobbling and cane-work. The expenditure on the Reformatory was Rs. 15,331 as compared with Rs. 15,042 in the preceding year, an average of Rs. 161·4 for each boy against Rs. 148·9.

Literature and the Press.

Publications registered.

292. For the first time for some years there is a fall in the number of publications registered. Three hundred and sixty-two only appear in the list for 1911 against 373 in the previous year. Burmese with 186, Pâli-Burmese with fifty-four and Pâli with 46 publications again head the list of languages. English and Anglo-Burmese follow with 33 and 11 publications respectively. No other language

CHAP. VII.—INSTRUCTION.

attains to double figures. Original works account for 169 out of the total number of Burmese publications, religion coming first with 61 books and drama and miscellaneous subjects following with 41 each. Religion and language practically monopolise the Pâli and Pâli-Burmese output. Under drama a considerable quantity of Burmese verse is said to be included, but the report offers no opinion on the poetic quality or literary abilities displayed by the various authors either under this or any other head. Fiction, apart from drama, shows no sign of development and is represented by seven volumes only, most of which are described as mere fairy stories. Grammars, commentaries, school primers and hand books form the majority of the works under other categories, and there is little of permanent interest. The miscellaneous section includes a large proportion of such literature as advertisements, prospectuses, rules of societies, model letter writers and the like. Several works of biography, and two volumes of speeches on things in general which also appear under this head may perhaps be taken as showing promise of further literary development in future years.

Presses, newspapers and periodicals.

293. The number of presses at work in the Province rose from 102 to 123. In Rangoon three presses were closed and fourteen new ones opened during the year, making a net increase of eleven. The three Government presses, the Central Press and the Jail Branch Press in Rangoon, and the Maymyo Branch Press are not included in the above figures. Three new presses were opened in the Prome District, two in Tharrawaddy and one each in the Akyab, Ma-ubin, Pyapôn, Thatôn, Thayetmyo and Amherst Districts. Rangoon has now 54 presses and Mandalay 24, the latter a decrease of one as compared with last year. The Amherst and Prome Districts have each nine presses. As was the case last year there are no presses in Upper Burma outside the Mandalay, Shwebo, Thayetmyo and Pakôkku Districts. Newspapers and periodicals number 47 and 23 respectively. Seventeen newspapers are printed in English and six are bilingual, English being one of the languages. The other languages represented are Burmese, Sgau-Karen, Pwo-Karen, Tamil, Gujarati, Urdu and Chinese. The most important daily newspapers are the "Rangoon Gazette" and the "Rangoon Times."

Literary Societies

294. In Rangoon there are a Literary Society which owns a Reading-room and Circulating Library and Institutes connected with the Young Men's and Young Women's Christian Associations. All three continued to prosper. In Mandalay there is a Literary Society but that in Moulmein has ceased to exist. The Burma Research Society founded in 1910 has for its object the investigation and encouragement of art, literature and science connected with Burma and the neighbouring countries and issues a journal. A number of small libraries have been started in various places under the auspices of the Young Men's Buddhist Association.

The Rangoon Teachers' Association has a large reference library which is supported by a grant of Rs. 1,200 a year from the Local Government. It organised evening classes in book-keeping, commercial correspondence and typewriting. Visitors numbered 6,336 and the total number of volumes in the library was 4,097.

The Bernard Free Library, Rangoon, receives an annual contribution of Rs. 5,000 a year from Provincial Revenues. It contains a valuable collection of Pâli literature. The number of registered borrowers rose to 1,143 and the total number of books to 9,138. There were 4,836 books in the Manuscript Department. The copying of old and worn Talaing manuscripts continued, a special grant being made by Government for the purpose.

The Chinese Empire Reformation Association has ceased to exist. The Bar Library, Rangoon Pleaders' Association and the Buddhist Propaganda Society continued their activities, the last named Society in particular receiving a large addition to its roll of members which now contains 2,333 names.

Arts and Sciences.

295. The post of Provincial Art Officer continued to be held by the Director of Agriculture. Two Art Handicraft Exhibitions were held during the year, one at Bassein where the exhibits included gold and silver work, wood-carving, umbrellas and pottery and the Provincial Exhibition in Rangoon. The latter was held in February 1912 and as usual attracted many entries both from Rangoon and other parts of the Province. None of the silver work reached the highest level of former years, but there was a general raising of the standard especially among the junior craftsmen which promises well for the future of the art. The work of the metal statuette makers again commanded attention and the exhibits of ivory and wood-carving and lacquer were also well up to the average. Prizes were offered for jewelry to both Burmese and Chinese goldsmiths and a special award was made to an exhibit of *dahs* mounted with silver niello-work from the Yamèthin District.

Among the industries of the Province partaking of an artistic character may be mentioned the silk weaving of Mandalay and Amarapura and the Prome, Henzada, Tavoy and Shwebo Districts, pottery in the Bhamo, Syriam, Bassein and Shwebo Districts, wood-carving in Mandalay, Rangoon and Bassein, silver work in Rangoon and the Thayetmyo, Pegu and Mandalay Districts, lacquer work at Nyaungu and Pagan in the Myingyan District, bronze work in Pegu and Mandalay and brass work and the carving of images in marble in Mandalay. These industries are also found in other places and there are other arts practised to some extent which escape mention in the reports.

CHAPTER VIII.

ARCHÆOLOGY.

REFERENCE:—

Report of the Superintendent, Archæological Survey, Burma, for the year 1911-12.

296. The principal work of the Archæological Survey during 1911-12 consisted in the excavation of the prehistoric sites of Yathemyo near Prome. The most valuable find of the season was two stone reliquaries, each inscribed, with a legend in the Pyu character. Estampages of both were sent to England to Mr. C. O. Blagden, whose preliminary reports show that the find is an important one. It appears to be now clear that the language usually known by the name of "Pyu" was the language of the district of Prome and that used in the funeral epitaphs of its chiefs. The existence therefore, prior to 1000 A.D., of a third independent nation, neither Burmese nor Talaing, with its centre at Prome between the Talaing states of the Delta and Tenasserim and the Burmese state of Pagan is by the Superintendent now regarded as established. The Pyu script appears to have some relation to that of ancient Telugu and it is possible that the Pyus received their letters, religion and civilization from the Dravidians of the Telugu country. The excavation of the terra-cotta plaques of the eastern Pet-leik Pagoda at Pagan was also carried out during the year.

No progress was made during the year in the compilation of the Provincial list of Ancient Remains from the Divisional lists. The old Fort of Tabu in the Taikkyi Township of the newly-formed Insein District and the old wall of the Myodwin Fort in the Gyobingauk Township of the Tharrawaddy District were notified under sections 20 and 23 of the Ancient Monuments Preservation Act, VII of 1904. No other action was taken under the Act during the year.

The Government of India granted a subsidy of Rs. 5,000 for archæological expenditure during the year and a further sum of Rs. 15,000 was made available from Provincial Funds. The total expenditure on archæological works was thus less than half that incurred in 1910-11 when the total reached Rs. 42,000.

Repairs were executed at the Sandamani Pagoda and the Kuthodaw Pagoda in Mandalay by private enterprise, and U Kan Ti, the hermit of Mandalay Hill, has also undertaken at the cost of a lakh of rupees to erect a suitable pagoda on the south-eastern spur of the Mandalay Hill for the enshrinement of the relics of the Buddha made over to the Burmese in 1910.

Considerable difficulty has been experienced in finding suitable candidates for the Archæological Scholarship, no application having been received since 1910.

CHAPTER IX.

MISCELLANEOUS.

REFERENCES :—

Report of the Chemical Examiner and Bacteriologist to the Government of Burma for the year 1911.

Statistics of British India, Part VI.

Report on the working of the office of the Superintendent, Government Printing, Burma, for the year ending the 31st March 1912.

Ecclesiastical Jurisdiction

The Bishop.

297. Up to the year 1877 the ecclesiastical jurisdiction over the Province was vested in the Bishop of Calcutta. In that year the See of Rangoon was created and the Right Reverend J. H. Titcomb, D.D., was consecrated as the first Bishop. In June 1882 Dr. Titcomb resigned the Bishopric on account of ill-health. He was succeeded by the Right Reverend J. M. Strachan, M.D., D.D. Owing to the annexation of Upper Burma, new letters-patent were granted in 1888 extending the area of the Bishopric so as to include the whole of Burma. On the 1st of October 1902 Dr. Strachan resigned the Bishopric and was succeeded by the Right Reverend A. M. Knight, D.D. On October 31, 1909, Dr. Knight was obliged to resign owing to ill-health and was succeeded by the Right Reverend R. S. Fyffe, M.A.

Government Chaplains.

298. Under the Bishop are eleven Chaplains of the Bengal (Rangoon) Ecclesiastical Establishment. One of these is posted at Dagshai, a hill station in the Punjab, in accordance with an arrangement sanctioned by the Government of India in June 1880, and another at Port Blair.

Archdeacon.

299. An Archdeacon is appointed by the Bishop from among the Government Chaplains. The first was appointed in October 1879.

Additional Clergy.

300. Nine allowances are paid by Governmnt to Clergymen who come out from England for periods of five years under agreement with the Rangoon Additional Clergy Society to serve stations for which no Government Chaplain is available; in addition they receive funds raised for their support by private subscriptions.

Ecclesiastical.

301. During the year of report a Church at Myitkyina, towards the cost of which Government contributed Rs. 2,000, was dedicated for worship. There was no other event of special interest.

Stationery.

302. The bulk of the paper used for official purposes continued to be supplied by the Controller of Printing, Stationery and Stamps, Calcutta, from the Indian mills. The cost of stationery issued to General Departments and Government Presses in Burma during the year was Rs. 73,507 and Rs. 2,77,755 respectively. As compared with the previous year the figures show a decrease of Rs. 26,124 under General Departments and an increase of Rs. 24,158 under Government Presses.

Office of the Chemical Examiner and Bacteriologist.

CHAP. IX.—MISCELLANEOUS.

303. The number of articles examined under the Medico-Legal Department rose slightly from 1,256 to 1,304. The number of cases investigated for blood stains decreased from 307 to 297 and the articles examined fell from 572 to 512. Under the General Analytical Department 28,135 articles were examined, being an excess of 4,188 over the figure for 1910. The increase was mainly in the work done for the Excise Department under the heading cocaine, morphia and ganja. One hundred and ninety-one fewer samples of opium were sent for examination.

During the year of report 849 articles were examined bacteriologically, against 770 during 1910. There was an increase of 18 in the number of pathological specimens received. Judging from the small number of specimens of blood sent for examination the facilities afforded by the laboratory for the determination of the malaria and other parasites are as yet inadequately appreciated. Seventy-two samples of water and aerated waters were examined for purity, and 26 of these were condemned as unfit for drinking.

Office of the Superintendent, Government Printing.

304. The Government Presses in the Province are three in number, *viz.*, the Central Press in Rangoon, the Jail Branch Press, also in Rangoon, and the Maymyo Branch Press. The work which is carried out at these presses is chiefly printing for Government Departments, and has been noticed in Chapter VII, *supra*, in the section entitled *Literature and the Press*. The receipts of the Press are small and arise chiefly from the sale of Acts, Gazettes and Forms, and from printing work done for bodies financially independent of the Government. These receipts amounted to Rs. 34,008 in the year of report, a decrease of Rs. 1,288 compared with the previous year. The expenditure of the three presses, exclusive of the value of convict labour employed, of the value of type manufactured within the walls, of depreciation of plant, and of pensionary charges, and value of stationery supplied by the Controller of Printing, Stationery and Stamps, India, but including the remaining book adjustment, namely, the cost of stores obtained from England, amounted to Rs. 3,94,298 against Rs. 4,32,565 in the previous year. Printing work to the value of about Rs. 24,000 was given out to private presses as compared with Rs. 31,000 in the preceding year. The value of the outturn of work, exclusive of the cost of paper and binding materials, from the Central Press was estimated at Rs. 3,04,243, from the Jail Branch Press at Rs. 1,02,990 and from the Maymyo Branch Press at Rs. 15,629, in all Rs. 4,22,862. The corresponding total for 1910-11 was Rs. 4,97,356. The value of dead stock at the three presses, exclusive of land and buildings, amounted to Rs. 4,65,000 against Rs. 4,68,000 in the preceding year. The new Government Press buildings at Rangoon are now almost complete and will probably be occupied by the beginning of 1913.

Printed by order of the Government of Burma.

G. B. C. P. O.—No. 211, Chief Secy., 9(e), 31-12-1912—645—J. T. N.

00133906

Digitized with financial assistance from

Government of Maharashtra

on 01 February, 2020